The Journal

ume 47 February, 1948 Number 2

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A Crippled Child—Every Easter Seal You Buy Helps.
A Rheumatic Child Is Also a Crippled Child!

(Article on Page 144)

Several Million Americans

are probably affected by riboflavin

*deficiency and not a few of them are in the highest stratum of society**

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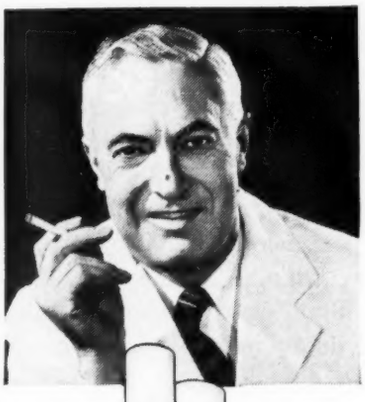

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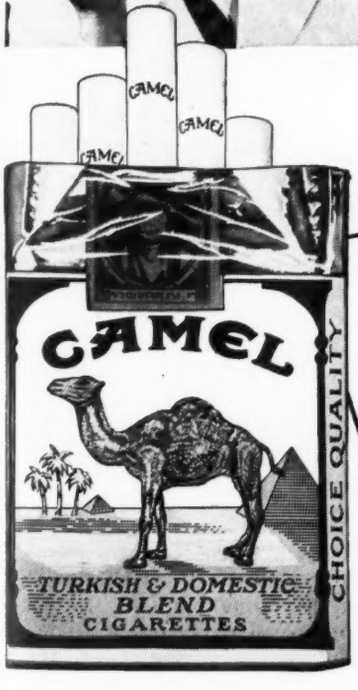

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Political Medicine

FREEDOM OR SERFDOM

C. E. UMPHREY, M.D.
Detroit, Michigan

OUR FOREFATHERS came to this country looking for freedom, and by establishing our Constitutional Government—a government of the people, by the people and for the people—guaranteed by law to every citizen the reasonable exercise of personal liberty. Great obstacles stood in the path of this unique adventure in government, but these people, who had been the victims of feudalism were willing to work, to suffer, and to sacrifice for the achievement of their ideals. For many years, the people of this Nation have reaped the benefits of our constitutional form of government. However, at times it seems we have become so accustomed to these advantages and blessings that we no longer appreciate them, and are no longer willing to fight for the preservation of our great heritage.

Many of our citizens now seem willing to exchange individual freedom—their very souls—for the benefits they think will come to them from a socialistic state. Many would sacrifice freedom itself for a mere promise of parities, subsidies, bonuses, grants, indemnities, support payments. Security with the least expenditure of effort has become their objective. Whether enough clear thinking leaders can be rallied to stop this present trend toward a socialistic or communistic state remains to be seen.

Socialism and Communism are the parallel roads which lead to a form of police control in which the individual gives up his personal liberties for vague promises of security and social and economic equality. The greatest menace which this Nation and the world face today is that our people will succumb to Communism.

Communism a Real Threat

This problem should be of great concern to us as doctors. The socialization of medicine is only a small part of the pattern of Communism. All private enterprise would be taken over. If we question this, we should read the Communist Manifesto[1] prepared in 1848 by Marx and Engels. A friend of mine said a short time ago: "All this talk about Communism and Socialism is just a wolf cry." We would like to believe that he is right, but the facts do not support him. Reliable authorities estimate that there are 282,618[2] sworn Communists in North America. My friend became truly concerned when he was told that there are ten "fellow travelers" for every member of the Communist Party, or a total of 2,826,180 workers for a cause which opposes our Government by every kind of espionage.

Perhaps the trend of Communism will become even more realistic by pointing out the fact that as of October 1, 1947, there were 3,835 Communist Party members in Ohio, 6,500 in Illinois, and 2,135 in our own State of Michigan.

If there is any doubt in our minds as to the objectives of the Communists, that doubt vanishes when we review the working principles of the party:

1. The working class must seize control from the bourgeoisie, or capitalist element.
2. Advocate violence if necessary.
3. Compel legislative recognition through organization.
4. Use the bourgeoisie or capitalist group, as they split when they try to defend their future interests.
5. Destroy all previous securities for, and insurances of, individual property.
6. Do not form a separate party opposed to other working classes or unions.
7. Overthrow the bourgeoisie and assume political power by the proletariat.
8. Abolish the family.
9. Use the system of education for indoctrination.
10. Support any organization that will further the cause.
11. Overthrow all existing social orders.

If you are eager to learn more about the efforts and successes of the Communists, I refer you to the

Presented at the meeting of the Michigan Physicians Committee, Detroit, Michigan, October 29, 1947.

1. Communist Manifesto, Karl Marx and Frederick Engels.
2. Map of the United States showing number of Communist Party members, by States.

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FREEDOM OR SERFDOM

(Continued from Page 130)

bibliography which has been prepared by the Americanism Division of the American Legion. Every citizen owes a debt of gratitude to the American Legion for its continuing efforts to keep our great country free from the subversive elements which would destroy all of our democratic institutions.

To illustrate the methods and techniques of the Communist Party, I should like to detail a few examples. The Congressional Committee on Un-American Activities investigated and exposed the Young Communists League and brought such pressure to bear that this organization was disbanded on October 16, 1943. Undaunted by this rebuff, the Young Communists League was reorganized the next day under the name of American Youth for Democracy.[3] There is no doubt that the latter organization is the major front for Communism in the youth field. AYD has about sixty chapters in fourteen states, with a membership of 16,194 boys and girls. AYD's complete adherence to the Communist line dominates all of its activities. AYD wishes to attract the younger veterans, it claims a strong kinship with labor. AYD is affiliated with the Communistic World Federation of Democratic Youth which has its headquarters in Paris. We record these facts in the hope that each loyal citizen will understand that our children and young people are continuously exposed to these subversive influences and will be impelled to use whatever influence he has with our legislators and educational leaders to the end that AYD will be exposed and barred from our schools and campuses.

Infiltration Via School Textbooks

Parents and educators must be alerted to the subversive textbooks which are in use in our elementary and high schools. To cite a case in point, the California Society of the Sons of the American Revolution appeared before the legislature of that State to present charges against the Superintendent of Public Instruction, the Curriculum Commission and the State Board of Education, arising out of the use in the schools of California of subversive textbooks, most noteworthy of which were those in the "Building America" series.

In 1926 the American Historical Association received a grant of $300,000 from the Carnegie Corporation and spent this sum in five years of research. In 1934 the report, based upon this research, concluded that a new age of collectivism is emerging, and pointed out that public school education is the foundation of this Utopian "integrated order." The propaganda vehicle is to be courses of study in the social sciences, supplanting the traditional study of American history, geography, and civics. To further the cause of collectivism in the schools, Professor Harold Rugg of Teachers College, New York, prepared a series of fourteen textbooks;[4] eight for the elementary grades and six for high school students. Each of these textbooks was supplemented by a student's workbook and a teacher's guide in which both student and teacher are instructed how to interpret the textbook material. The following example of the Rugg technique is illuminating. A particular textbook deals with working conditions in the United States. The companion student's workbook then poses this question, "Is the United States a land of opportunity for all people?" and the the teacher's guide gives this unique answer to the question: "The United States is not a land of opportunity for all our people; for one-fifth of the people do not earn any money at all. There are great differences in the standards of living of the different classes of people. The majority do not have any real security." Many other illustrations from the youth field could be given, all of them clearly illustrating the fiendish devotion with which so-called progressive, liberal educators have for the Lenin statement, "Give me four years to teach the children, and the seed I have sown will never be uprooted."

After our youngsters leave school and enter business or become employed, they find that Communist fronts for businessmen and workers have also been provided. Posing as liberals and anti-fascists, some businessmen adhere to the Communist line. An example of the Communist front organizations in the business field, "The New Council for American Business," of which Mr. Wendell Berge,[5] former Assistant Attorney General of the United States, is the General Counsel. Frank Jaros is treasurer of the organization, and its secretary, Wesley E. Shorer, is the faculty member of the Communist Party's official school in Chicago.

3. Union Calendar No. 122, 80th Congress, 1st Session, Report No. 271.

4. Undermining our Republic, published by Guardians of American Education, Inc.

5. Counterattack—the news letter of facts on Communism, published by American Business Consultants, Inc., March 16, 1947.

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FREEDOM OR SERFDOM

(Continued from Page 132)

Subversive Influence in Labor Unions

Almost everyone has become aware of the Communist attempts to infiltrate American labor unions. However, to illustrate the effectiveness of this technique, the following partial list of Communist controlled unions is quoted from *Counterattack*[6]—the newsletter of facts on Communism:

American Communications Assn.....CIO
Conference of Studio Unions (Hollywood Coalition) .....Mainly AFL
Food, Tobacco, Agricultural, and Allied Workers Union of America .....CIO
International Fishermen and Allied Workers of America .....CIO
International Longshoremen's and Warehousemen's Union .....CIO
International Fur and Leather Workers Union.....CIO
International Union of Mine, Mill and Smelter Workers .....CIO
National Maritime Union.....CIO
Transport Workers Union of America.....CIO
United Electrical Radio and Machine Workers of America .....CIO
United Farm Equipment and Metal Workers of America .....CIO
United Furniture Workers of America.....CIO
United Office and Professional Workers of America..CIO
World Federation of Trade Unions.....CIO

In addition, some seventy party line organizations are listed. It is healthy to note that many of the labor organizations have recently begun to resent communistic control and are analyzing conditions which existed during our greatest period of prosperity. One fact stands out; increased effort means increased production which gives us cheaper commodities, thus increasing by millions the number of people able to purchase, which means greater employment. This, in turn, means fewer on welfare and less tax demands. On the other hand, if we continue on the inflation road we now travel, we shall quickly reach the point, as they did in Germany a few years ago, where $250,000 will buy a postage stamp. Honest labor leadership can start us on the greatest prosperity this country has ever known. Of course, Russia will be strong in comparison if we weaken ourselves through Communistic subversive influence which is hurling us toward inflationary disaster.

What can be done to correct the present inflationary tendencies in this country today? We might follow very profitably the program of the National Trades Association which is as follows:

"We do not seek any special privileges."
"We seek equality before the law for everyone."
"1. The right of every worker to deal with his employer by collective bargaining through any agency he chooses.
"2. The right of every worker to deal with his employer directly as an individual.
"3. The right of every individual to work or not as he chooses.
"4. The right of every worker to go to and from his work unmolested.
"5. Equality under the law and the protection of minority right.
"6. Monopolistic activities of all groups whether employer or employe, must be controlled in the public interest."

The inescapable conclusion is:

1. The Wagner Act must be repealed.
2. Special immunities under antitrust laws must be repealed.

How does Russia get the complete co-operation she does? From 1919 to 1924 there is a matter of some 1,776,747 executions. According to Melgunou's book, the Sovet Secret Police boasted of their executions.[7] The list was made up of bishops, priests, teachers, physicians, officers, soldiers, policemen, landlords, office workers, laborers, and farmers. How do the Russians live now? The average weekly salary is $16.50. The cheapest women's shoes are $156.00 a pair. Those prices were current on July 19, 1946. This made it possible for the government to run a black market and drain off all the surplus savings. The current Russian five-year plan foresees one pound of rationed meat per month for the Russian worker but not before 1950. Please remember, however, he works only fourteen hours a day. As Joe Doakes said when he was deported for being a Communist, "Why didn't someone tell me about this?"

John Stuart Mill wrote a hundred years ago: "A people may prefer a free Government, but if from indolence, or carelessness, or cowardice, or want of public spirit, they are unequal to the exertions necessary for preserving it; if they will not fight for it when it is directly attacked, if they can be deluded by the artifices used to cheat them out of it; if by momentary discouragement or temporary panic, or a fit of enthusiasm for an individual, they can be induced to lay their liberties at the feet of even a great man, or trust him with powers which enable him to subvert their institutions; in all these cases they are more or less unfit for liberty; and though it may be for their good to

6. Counterattack—the news letter of facts on Communism, September 19, 1947.

7. Believe It or Not, by Robert Ripley.

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FREEDOM OR SERFDOM

(Continued from Page 134)

have it even for a short time, they are unlikely long to enjoy it."

The American Way of Life

The way we enjoy life in the United States is simply expressed by DeWitt Emery,[8] president of the National Small Business Men's Association, who says:

"Our American Way of Life is made up of many things—bathtubs and automobiles; big cities and small towns; farms and victory gardens; mammoth steel mills and village machine shops; colossal educational institutions and the little red school beside the road; churches and hospitals; railroads and air lines; chewing gum and ice cream; department stores and crossroad general stores; specialty shops and beauty parlors; pool rooms and race tracks; Hollywood, Broadway and the high school play; laughter and sorrow; eagerness and despair and people—millions of all kinds of people—gathered together from all over the world, drawn by the magnet of Freedom, Opportunity and Justice. Our American Way of Life provides each individual an opportunity to go as far and climb as high as his willingness to work, his skill, ingenuity and integrity will carry him.

"Our American Way of Life recognizes that the individual has the right to work when and where he wishes, the right to worship as he pleases, to speak his mind on any subject, to meet with his fellow men for any peaceful purpose, to be secure in his possessions and to have his day in a free court. It also recognizes that the individual is superior to the State, that our public officials are servants of the people and that they derive their just powers from the consent of the people.

"These things taken together created an atmosphere of freedom and an economic climate which made possible in the United States the greatest production and the establishment, for even the lowest paid workers, of the highest standard of living the world has ever known.

"Why? Because for more than one hundred and fifty years, free men in a free country have been working together to provide this better way of life. Let us hold what they have given us and go forward in the sure faith that the American Way of Life is the greatest blessing known to mankind any place on the face of God's earth."

Misleading Draft Rejection Figures

A tremendously important revelation of the unreliability of quoted government statistics—particularly with reference to rejections for "physical unfitness" of youths examined by the Selective Service Boards—was made recently by Maurice H. Friedman, Ph.D., M.D., of Washington, D. C. Testifying before the Senate Committee on Labor and Public Welfare, on June 25, 1947, on Senate Bills 545 and 1320, Dr. Friedman proved that the draft rejection figures used by proponents of compulsory sickness insurance were not only misleading but actually incorrect. Dr. Friedman, in presenting voluminous statistics of incontrovertible accuracy, declared:

"One of the chief arguments of the proponents of National Compulsory Health Insurance is that the medical services now available to our people are so inadequate that the need for some nationwide, comprehensive and compulsory medical insurance is urgent and immediate. According to this argument the status of the health of our citizenry is so deplorable that we can no longer afford to spend more time for the acquisition of more reliable data and more experience through local and varied experimentation with voluntary health insurance.

"Probably no point has been stressed more by the proponents of compulsory health insurance than the country-wide rejections by the Selective Service System. 'Working people are shocked, just as other people were, by the extent of physical unfitness that was revealed by the Selective Service examinations. . . . Of 16,000,000 youths examined, fully half were unfit for military service. The nature of the defects among the rejectees suggests that half to two-thirds of the defects could have been prevented or rehabilitated with timely care.'

"As can be seen from the following analysis of the Selective Service Data, the defects uncovered by the draft examinations have little significance with respect to the general health of this country. Any statement to the effect that one-half to two-thirds of such defects are preventable or remediable is utterly false.

The assumption has been made, usually tacitly, by the proponents of compulsory health insurance that the statistical sample examined by the draft boards was truly representative of the young adult male population of the United States. This is not quite true. Between Dec. 7, 1941, and Dec. 31, 1943, the draft boards selected about 10 million men for examination, and of these about 3.6 million were rejected; i.e., a rejection rate of about 36 per cent. During this period, however, 2.7 *million men voluntarily enlisted in the armed forces.* If these men had gone through the selective service examination the total number of men examined would have been 12.7 million, and the rejection rate 28.4 per cent.

"After the enlistment of these 2.7 million men, 37.5 per cent of the residual available manpower was deferred because of essential occupation or dependency. Therefore the population examined by the Selective Service Boards was the male, adult population of the United States, minus those physically fit men who enlisted and minus the 37.5 per cent of the balance who were deferred *because of their particular value to war industry or to their families.*"

Government Propaganda for Socialized Medicine

The Honorable Forest A. Harness, Representative in Congress from the Fifth Indiana District,

(Continued on Page 138)

8. Our American Way of Life, by DeWitt Emery.

FREEDOM OR SERFDOM

(Continued from Page 136)

addressed the National Physicians Committee's National Conference of the Professions in Chicago on September 29, 1947. Congressman Harness is Chairman of the Subcommittee on Publicity and Propaganda of the House Committee on Expenditures in Executive Departments. His fight to curtail Communistic and Socialistic activities in Washington are clearly portrayed by the following quotations:

"The brand of dictatorship makes no difference—Communism, Fascism, Nazism, Socialism . . . all are alike, in that they enforce a system of State Medicine, or Political Medicine, as I prefer to call it.

"The amazing ramifications of the federal propaganda in behalf of Socialized Medicine have astonished me. How much of our total appropriations for health and welfare are being diverted to this sort of high-pressure propaganda, we do not yet know. But we do know that the amount is considerable. And before our inquiries are concluded, we shall hope to present for public consideration an itemized account of the total diversion of federal funds for this propaganda campaign.

"To our committee it seemed reasonable to ask why these agencies should be permitted to spend public money to generate an entirely artificial public demand for a system of Socialized Medicine in the United States, when all our experience through public opinion polls, and all our contacts with the medical profession indicate beyond question that the American people and the American medical profession insist upon maintenance of our traditional system of free medicine, under which we have attained the highest standards of service and scientific skill and proficiency ever recorded in the history of the world.

"All this Federally financed activity for Socialized Medicine heads up in the Bureau of Research and Statistics in the Social Security Board. Our Committee investigators have found in that bureau a veritable nerve center of Socialized Medicine propaganda for the entire world.

"But we are interested that funds appropriated by Congress for public administration shall not be diverted to a world-wide system of propaganda calculated to advance socialization of medicine the world around.

"But I, for one, do not intend to see this gigantic propaganda machine for Socialized Medicine financed entirely by funds secretly diverted from moneys appropriated by Congress for the legitimate functions of government.

"Suffice it here to say that the project was financed almost entirely by Federal funds, through the contributions of the participating government agencies—through the assignment of the so-called forum experts from the government bureaus, through the payment of travel expenses, and the providing of literature and mimeographed material for the meetings.

"Gentlemen, I am here to say that such a distorted conception of the public service in Washington must be uprooted by Congress.

"From these incidents it seems reasonable to conclude that some of our bureaus in Washington regard themselves as the protectors and defenders of the whole concept of compulsory national health insurance and Socialized Medicine. But, again, I want to repeat—that is not what Congress appropriated the money for!

"In our examination of the Bureau of Research and Statistics in the Social Security Board, we discovered that practically every argument, every pamphlet, every radio broadcast, and every statistical table, advocating Socialized Medicine originated primarily in the Social Security Board. Here is the world-wide nerve center of the movement for Socialized Medicine. Our committee found, and has so reported to Congress, that pamphlets prepared as to basic material in the Social Security Board were distributed to the general public by the CIO and AFL, the Farmers' Union, The Physicians' Forum and the Committee for the Nation's Health. All these pamphlets vigorously supported Socialized Medicine as embodied in the Wagner-Murray-Dingell bill. In several of the pamphlets, no matter by whom distributed, the language and the figures were the same.

Charges Against Tokyo Health Mission

"In a letter to Chairman Taber of the House Appropriations Committee, I made the following charges against the Tokyo Health Mission, which was dispatched to Tokyo by Government officials who have long been identified as proponents of Socialized Medicine schemes:

"1. That the health mission to Japan is composed entirely and exclusively of men long identified in the public record as advocates and proponents of Socialized Medicine not only in the United States but throughout the world.
"2. That the real purpose of this mission is to lay the groundwork for a system of Socialized Medicine in Japan.
"3. That the scheme for such a mission originated in the Division of Research and Statistics in the Social Security Board in Washington, and nowhere else.
"4. That the nominal request for the mission was engineered through the General Headquarters of the Supreme Commander in Tokyo by federal employes sent from Washington for that purpose.
"5. That General Douglas MacArthur does not favor —and does not approve—any plan to establish compulsory Socialized Medicine in Japan.
"6. That the dispatch of this mission to Tokyo for the purpose indicated in Mr. Wandel's letter to Mr. Flak under date of June 14, 1947, is a gross misuse of public funds.
"7. That the real purpose of the mission is not to assist Japan in working out her basic problems in health and welfare, but to force upon that country a compulsory system of Socialized Medicine.
"8. That although the questions here involved are of

(Continued on Page 140)

FREEDOM OR SERFDOM

(Continued from Page 138)

> a health and medical nature, the Surgeon General of the United States Army was not consulted in reference to the problems involved."

Communism and Compulsory Sickness Insurance

"Suffice it at this time to report our firm conclusion, on the basis of the evidence at hand, that American Communism holds this program as a cardinal point in its objectives; and that, in some instances, known Communists and fellow-travelers within the Federal agencies are at work diligently with Federal funds in furtherance of the Moscow party line in this regard.

"We must not fall into the attitude that all our opinions are made in Washington and handed down to us full fashioned. That is the way of dictatorship.

"Public Opinion must be maintained in its free and virile state—in full harmony with the great American tradition of liberty. If we do that by stamping out government propaganda at its roots, then we shall have rendered a great service, not only to medicine, but to the whole cause of liberty and freedom the world around.

"We all know that freedom is not free.

"We all know that bureaucratic power feeds upon itself—and upon the rights and privileges and liberties of the people.

"If we are to support and defend liberty and constitutional government in America, we must begin by keeping clean and undefiled the wellsprings of public information from Washington.

"Government propaganda poisons the well of public information.

"Government propaganda is illegal.

"Government propaganda is a method of dictators.

"Our purpose will be to uproot and destroy government propaganda wherever we may find it."

Is Representative Harness fighting just the subversive elements in our Government at the present time? Most decidedly not, he is fighting for preservation of the American way of life. Let us pause and take stock. Under that simple Constitutional system as originally conceived, in vogue nowhere else in the world, we developed here the highest and mightiest nation on earth, with a living standard for the common man by far the highest in world history, though Europe, Asia and Africa all had greater natural resources than we. Here, one's future was limited only by the extent of one's desire to work. With only 7 per cent of the world's population and 6 per cent of its land area, the United States possesses 80 per cent of the world's automobiles, 50 per cent of its telephones, 33 per cent of its railroad mileage, 30 per cent of its paved highways and 60 per cent of its life insurance policies. And before the war we consumed 75 per cent of the world's silk, 50 per cent of the world's coffee and 60 per cent of its rubber. All this did not come to pass because of some mysterious, unexplainable accident or because we did everything all wrong as our liberals and progressives and left wingers would have us believe.

A Timely Creed

If we doctors were to formulate a creed to fit the present times we might express ourselves as follows:

1. You can bring about prosperity by encouraging thrift.
2. You can help small men by aiding big men.
3. You can help the poor by not destroying the rich.
4. You can lift the wage earner up without pulling the wage payer down.
5. You can keep out of financial trouble by spending less than you earn.
6. You can further the brotherhood of man by discouraging class hatred.
7. You can establish sound social security if you are not encumbered by debts.
8. You can build character and courage by supporting man's initiative and independence.
9. You can help men permanently by urging them to do what they can and should do for themselves.
10. You can help to preserve ever improving medical care by offering your solicitied constructive criticisms and by demanding that Doctors remain forever free of State control!

Michigan Postgraduate Clinical Institute
Second Annual Session

Book-Cadillac Hotel, Detroit, Wednesday-Thursday-Friday, March 10-11-12, 1948

This Institute will be presented under the sponsorship of the Michigan State Medical Society in co-operation with the Wayne County Medical Society, the University of Michigan Medical School, Wayne University College of Medicine, University of Michigan Department of Postgraduate Medicine, and the Michigan Foundation for Medical and Health Education.

WEDNESDAY, MARCH 10, 1948

8:30 AM *Registration*—Fifth Floor, Book-Cadillac Hotel
Exhibits Open—Fourth Floor, Book-Cadillac Hotel

First Assembly

Grand Ballroom

L. Fernald Foster, M.D., Bay City, *Chairman*

8:55 AM Welcome.....P. L. Ledwidge, M.D., Detroit, President MSMS
C. L. Candler, M.D., Detroit, President, Wayne County Medical Society
9:00 "The Management of Obstetrical Patients".....Harold Henderson, M.D., Detroit
9:20 "Differential Diagnosis of Tumors of the Chest"..Cameron Haight, M.D., Ann Arbor
9:40 "Medical Diagnosis of Congenitally Anomalous Heart"
Saul Rosenzweig, M.D., Detroit
10:00 Intermission to View Exhibits
11:00 "Pulmonary Edema".....R. M. Eaton, M.D., Grand Rapids
11:20 "Diagnosis and Management of the Slipped Epiphysis"
A. G. Goetz, M.D., Detroit
11:40 "Useful Drugs in the Management of Allergic Diseases"
J. M. Sheldon, M.D., Ann Arbor

12:15 PM LUNCHEON, Crystal Ballroom

R. D. McClure, M.D., Detroit, Chairman

1:15 PM THE R. B. SYKES LECTURE: "Diagnosis and Treatment of Breast Tumors"
F. A. Coller, M.D., Ann Arbor

Second Assembly

Grand Ballroom

A. F. Bliesmer, M.D., St. Joseph, *Chairman*

2:00 PM "Control of Intractable Pain".....W. H. Meade, M.D., Lansing
2:20 "The Present Status of Anti-Thyroid Drugs".....W. S. Reveno, M.D., Detroit
2:40 "Quantitative Serologic Tests. Their Use in the Diagnosis of Syphilis and Follow-up after Intensive Treatment".....L. W. Shaffer, M.D., Detroit
3:00 Intermission to View Exhibits
4:00 "The Treatment of Common Skin Diseases".....E. P. Cawley, M.D., Ann Arbor
4:20 CLINICAL X-RAY CONFERENCE—Subject: Near Misses in X-Ray Diagnosis. Conducted by F. J. Hodges, M.D., Ann Arbor

Third Assembly

Grand Ballroom

8:00 PM Question Box
E. D. Spalding, M.D., Detroit, *Moderator*
D. H. Kaump, M.D., Detroit
M. F. Osterlin, M.D., Traverse City
W. F. Seeley, M.D., Detroit
H. J. Vanden Berg, M.D., Grand Rapids
10:00 SMOKER and ENTERTAINMENT. Host: Michigan Postgraduate Clinical Institute

THURSDAY, MARCH 11, 1948

8:30 AM *Registration*—Fifth Floor, Book-Cadillac Hotel
Exhibits Open—Fourth Floor, Book-Cadillac Hotel

Fourth Assembly

Grand Ballroom

C. G. Clippert, M.D., Grayling, *Chairman*

9:00 AM "The Use of Atomic Energy in Medicine".....K. E. Corrigan, Ph.D., Detroit
9:20 "The Present Trends in Treatment of Thrombophlebitis and Phlebothrombosis"
R. W. Buxton, M.D., Ann Arbor

9:40 "Endometriosis".....R. L. Haas, M.D., Ann Arbor
10:00 Intermission to View Exhibits
11:00 "Preanesthetic Medication".....N. M. Bittrich, M.D., Detroit
11:20 "Management of the Acute Abdomen".....Matthew Peelen, M.D., Kalamazoo
11:40 "Management of Acute Arthritic States".....W. D. Robinson, M.D., Ann Arbor

12:15 PM LUNCHEON, Crystal Ballroom

H. A. Kemp, M.D., Detroit, Chairman

1:15 "Medical Participation in Public Health".....H. F. Vaughan, Dr. P.H., Ann Arbor

Fifth Assembly

Grand Ballroom

E. I. Carr, M.D., Lansing, *Chairman*

2:00 PM "Psychosomatic Medicine".....R. W. Waggoner, M.D., Ann Arbor
2:20 "Feeding Problems in Infancy and Childhood"....Frank Van Schoick, M.D., Jackson
2:40 "Intestinal Obstruction".....R. J. Noer, M.D., Detroit
3:00 Intermission to View Exhibits
4:00 "The Acutely Red Eye".....A. D. Ruedemann, M.D., Detroit
4:20 CLINICAL-PATHOLOGICAL CONFERENCE—Subject: A Surgical Case. Conducted by O. A. Brines, M.D., Detroit

Sixth Assembly

Grand Ballroom

8:00 PM Panel Discussion on "First Aid to Acutely Injured Patient"
G. C. Penberthy, M.D., Detroit, *Moderator*
G. J. Curry, M.D., Flint
H. F. Falls, M.D., Ann Arbor
C. R. Keyport, M.D., Grayling
F. N. Smith, M.D., Grand Rapids
William Tuttle, M.D., Detroit
J. E. Webster, M.D., Detroit

FRIDAY, MARCH 12, 1948

8:30 AM *Registration*—Fifth Floor, Book-Cadillac Hotel
Exhibits Open—Fourth Floor, Book-Cadillac Hotel

Seventh Assembly

Grand Ballroom

Merrill Wells, M.D., Grand Rapids, *Chairman*

9:00 AM "Diagnosis and Treatment of Peptic Ulcer".....R. K. Dixon, M.D., Detroit
9:20 "Cancer of the Uterus".....H. M. Nelson, M.D., Detroit
9:40 "Management of the Patient in the Menopause"..H. H. Cummings, M.D., Ann Arbor
10:00 Intermission to View Exhibits
11:00 "Vomiting in Infancy".....H. A. Towsley, M.D., Ann Arbor
11:20 "Office Urology".....H. L. Morris, M.D., Detroit
11:40 "Poliomyelitis".....F. H. Top, M.D., Detroit

12:15 PM LUNCHEON, Crystal Ballroom

Arch Walls, M.D., Detroit, Chairman

1:15 "Problems of the General Practitioner in the Small Town"..J. S. DeTar, M.D., Milan
"Problems of the General Practitioner in the Large City"
W. B. Harm, M.D., Detroit

Eighth Assembly

Grand Ballroom

W. S. Jones, M.D., Menominee, *Chairman*

2:00 PM CLINICAL-PATHOLOGICAL CONFERENCE—Subject: A Medical Case. Conducted by F. W. Hartman, M.D., Detroit
2:40 "Pneumonia and its Complications".....L. G. Christian, M.D., Lansing
3:00 Final Intermission to View Exhibits
3:40 "The Recognition and Management of Tumors of the Lung"
R. H. Meade, Jr., M.D., Grand Rapids
4:00 "Hypertension and its Management".....F. A. Weiser, M.D., Detroit
4:20 "Endocrinology in Gynecology".....J. P. Pratt, M.D.,Detroit
4:40 "Office Treatment of the Nose and Accessory Sinuses"
A. C. Furstenberg, M.D., Ann Arbor

End of 1948 Institute

Easter Seals Support A Society That Serves

Since 1934, Easter Seals and Easter Season have been symbolically synonymous. Easter is the period of Hope; Easter Seals offer the fulfillment of the hopes and prayers of thousands of crippled children in Michigan.

Beginning February 28 and lasting through Easter Sunday, March 28, over 110,000,000 Easter Seals in sheets of one hundred will be on their missionary journey throughout Michigan giving everyone an opportunity to contribute. Money from the sale of the Easter Seals is administered by the Michigan Society for Crippled Children and Disabled Adults, Inc.

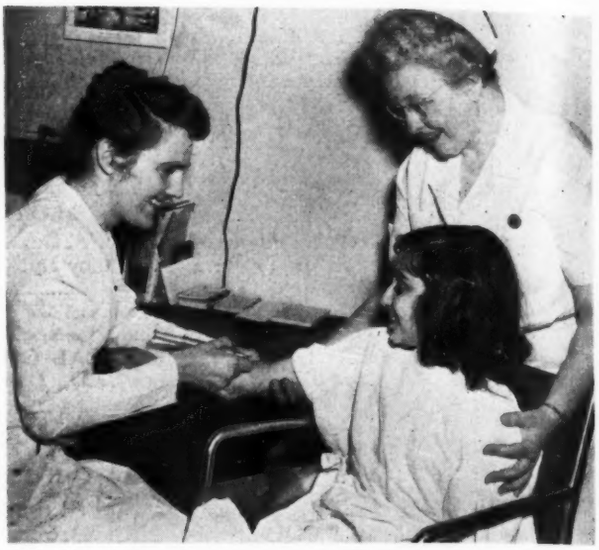
At this time, when opportunities to contribute to worthy charitable organizations abound, it is interesting to note that the Michigan Society for Crippled Children and Disabled Adults has distinguished itself by rendering services far in excess of reasonable expectations. The MSMS recognized this Society's outstanding efforts by awarding, on September 24, 1947, the first Distinguished Health Service Award ever to be given to any lay organization. The Award read as follows:

"In recognition of outstanding contribution to the cause of health the Michigan State Medical Society hereby awards to the Michigan Society for Crippled Children and Disabled Adults, Inc., the Distinguished Health Service Award. The Michigan Society for Crippled Children and Disabled Adults has pioneered for twenty-five years in providing care for all types of physically handicapped persons in Michigan: By its broad program, highly ethical procedures and co-operative spirit towards all who labor for better medicine it has succeeded in meeting a great social and economic need, to the benefit of the people."

Let us review some of the activities of the Easter Seal society, the more commonly known name of the Michigan Society for Crippled Children and Disabled Adults.

Easter Seals Support Rheumatic Fever Program

The Rheumatic Fever Program of the MSMS is wholly financed by the Easter Seal society. This unique program has already developed twenty-eight Centers in Michigan to which some 1,000 patients have been referred. Over 600 of that number have been diagnosed as having rheumatic fever. The *New York Times* recently recognized this program with a full-page story on Sunday, October 26, under the caption "Michigan Program is Hailed as Curb on Rheumatic Fever. New Long Range Fight on No. 1 Child-Killer is Cited as Example for Other States."



IT WASN'T FUN BUT IT HELPED

Ten-year-old Rosalie jokes with the nurses in the Rheumatic Fever Center at Grand Rapids. A nurse is taking blood for a test, and the other nurse and secretary of the Center assist the child. Of course, there are other tests, too—sedimentation rate, hemoglobin determination, urinalysis, x-rays, electrocardiograph. Thanks to Easter Seals.

Although officially only two years old, this program has already received $27,000 from the Easter Seal society.

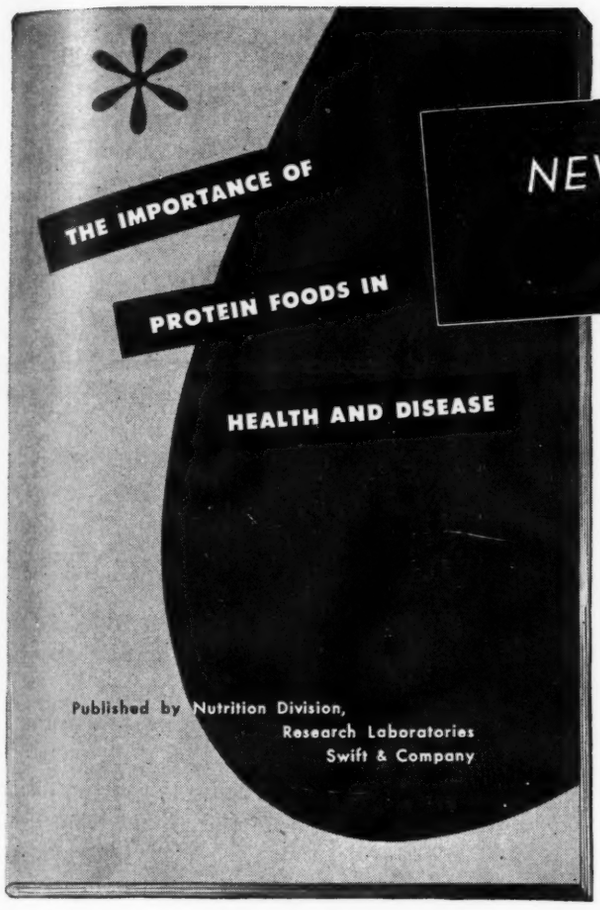
Easter Seals Support Cerebral Palsy Clinics

During the past year, the Easter Seal society has conducted six cerebral palsy clinics. Already 140 children have been examined, prescribed for, and referred to their family doctor of medicine for treatment. Five more clinics are scheduled, to date, for 1948.

Easter Seals Provide Occupational Therapy and Craft Work for the Home-Bound

For the so-called "forgotten cripple" who is home-bound, a program of occupational therapy and craft work has been inaugurated by the Easter Seal society. A staff of registered occu-

(Continued on Page 146)



NEW . . . physician's handbook of protein-feeding

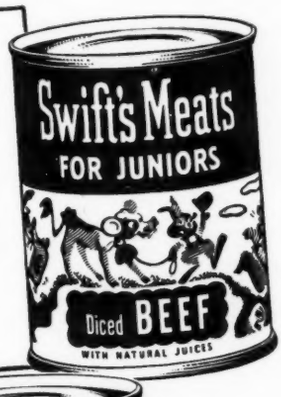
"The Importance of Protein Foods in Health and Disease"

Free — let us send you a copy now

Written by a practicing physician, in conjunction with the Nutrition Division of Swift & Company, this booklet provides a convenient source of reference for all the important, new, published findings concerning the value of protein in the human diet.

The booklet is broad in its scope, covering the subject from *the general significance of protein in nutrition* to specific *clinical aspects*. In addition, high-caloric, high-protein diets—for both oral and tube-feeding —are included. "The Importance of Protein Foods in Health and Disease" provides a practical, working handbook of protein feeding. Let us send you your copy now. Simply write Swift & Company, Dept. S.M.B., Chicago 9, Illinois.

Also Swift's Diced Meats . . . where textures of foods indicated may be less fine, you may find these tender, juicy cubes of meat desirable.



ACCEPTED
COUNCIL ON FOODS AND NUTRITION
AMERICAN MEDICAL ASSOCIATION

All nutritional statements made in this advertisement are accepted by the Council on Foods and Nutrition of the American Medical Association.

Palatable answer to many problems of protein supplementation

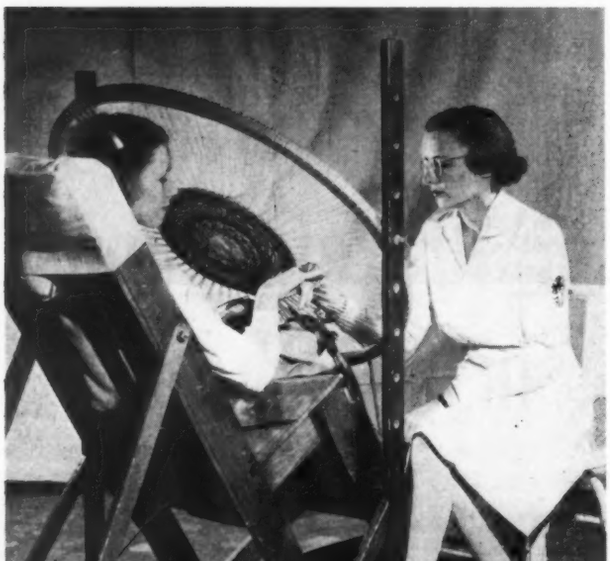
The new Swift's Strained Meats are being used more and more in soft diets where a high-protein intake is indicated. The six kinds of Swift's Strained Meats —beef, lamb, pork, veal, liver and heart—provide an exceptionally palatable source of *complete, high-quality proteins*, B vitamins and iron. Developed originally for infants, Swift's Strained Meats are 100% meat, soft and fine in texture—easily adaptable to tube-feeding.

The booklet "The Importance of Protein Foods in Health and Disease" is accompanied by a supplementary pamphlet containing simplified high-protein diets, for both oral and tube-feeding, using Swift's Strained Meats. Send for your copy today.

SWIFT & COMPANY
Chicago 9, Illinois

(Continued from Page 144)

pational therapists rotate their services across the State. The services involve interviewing, functional therapy, teaching crafts, purchasing and delivering supplies and equipment, pricing and



CRAFT WORK FOR THE HOME-BOUND

First, look at the unusual chair with wheel frame especially made for Mary. Of course, you cannot see the crippled legs, but note her crippled hands. You know what the skilled services of the occupational therapist means to her. Buy and use Easter Seals.

marketing products, and returning the profits to the patients. Over 800 cases have been interviewed, 500 are now being served and have progressed to the point where they are members of the Society's Home Crafters Guild.

Easter Seals Aid the Epileptic

To serve a portion of the 20,000 epileptics in Michigan suffering from convulsive disorders, the establishment of a Center in Detroit where expert medical and laboratory techniques will be available is planned. The main function of the Center will be to aid individuals and agencies concerned with the epileptics through proper understanding, treatment, training and both social and economic adjustment. The Council of the Wayne County Medical Society has given its approval to these plans and a committee of that society will advise regarding medical practices and policies.

Easter Seals Provide Other Services

Nor are the services of the Easter Seal society limited to the above programs. In addition it attempts to:

- improve existing facilities for the care of crippled children and raise standards throughout the state through the perfection of legislation and general promotion
- assist in arranging for and help in conducting public clinics, and in individual cases see that expert medical attendance is afforded
- provide for transportation to and from hospitals and schools
- furnish wheel chairs, braces, artificial limbs and other appliances designed for the best physical development and comfort
- provide recreational activities and summer camps
- provide home tutoring for those unable to attend school and assist in the matter of convalescent care
- fill local needs for such services as special teachers, occupational therapists and physical therapists through its Special Training Grant policy.

Distinguishing Characteristics of the Michigan Society for Crippled Children and Disabled Adults

Organized in 1919, the Easter Seal society works co-operatively with state tax supported agencies as a voluntary organization to assure the physical, educational, social and economic adjustment of the cripple. As a symbol it represents the people's desire for a total and adequate care program for crippled children and adults. The Society does not render assistance that can be obtained from any other source, but it does help in the functioning of all activities in its field. Easter Seal society services are carried out on a high ethical and professional plane.

Buy and Sell Easter Seals

The investment to restore cripples to productive capacity is one society can well afford. The purchase of Easter Seals assures that this investment will be made and properly administered.

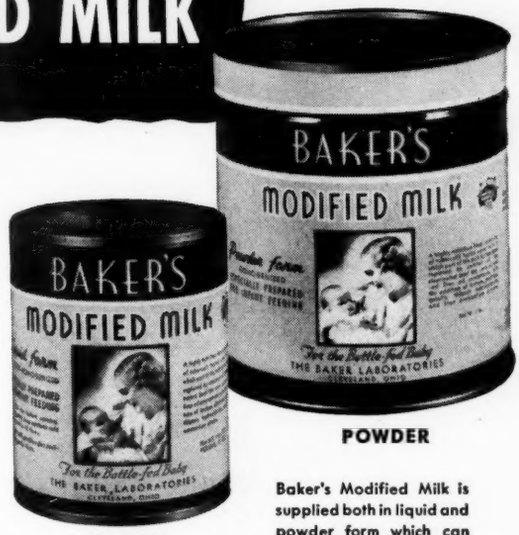
(Continued on Page 198)

"Yes, he's a 'Baker's' baby!"

DOCTOR: You win the acclaim of mothers and of obstetrical department personnel

WHEN YOU PRESCRIBE

BAKER'S MODIFIED MILK



POWDER

LIQUID

Baker's Modified Milk is supplied both in liquid and powder form which can be fed interchangeably.

Developed to meet the needs of the physician in infant feeding, Baker's Modified Milk is a complete food which will simplify your infant-feeding problems, as it has for thousands of other doctors.

You will find too, that mothers and "OB" department personnel who have had experience in feeding Baker's Modified Milk are pleased when you prescribe it. That's because Baker's is so effective and so easy to prepare. For normal feeding strength, liquid Baker's is just diluted with equal parts of water, previously boiled.

Among the many reasons for the fast-growing preference for Baker's Modified Milk are:

- Baker's Modified Milk is a complete infant food that closely conforms to human milk . . .
- . . . is well tolerated by both premature and full-term infants . . .
- . . . may be used either complemental to or entirely in place of human milk . . .
- . . . may be prescribed at any period—at birth or when mother's milk fails . . .
- . . . is helpful in correcting regurgitation, constipation, loose or too-frequent stools . . .
- . . . requires no changing of formula—as baby grows older, just increase the quantity of feeding . . .
- . . . reduces the possibility of error—only one simple operation: dilute with water, previously boiled . . .

● Baker's Modified Milk is made from tuberculin-tested cows' milk in which most of the fat has been replaced by animal and vegetable oils with the addition of lactose, dextrose, gelatin, iron ammonium citrate, vitamins A, B_1, and D. Not less than 400 units of vitamin D per reconstituted quart.

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Courses in Anatomy under the direction of Professor Russell T. Woodburne are offered to physicians wishing to review in this field. Such courses have been requested especially by surgeons and those preparing for specialty board examinations.

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The courses will run simultaneously. They will be given on Thursdays beginning February 12, at 1:00 P.M., and end May 27. The first part of the afternoon will be devoted to informal lectures, followed by practical studies in the Anatomical Laboratory. The evening hours to 10:00 o'clock will be devoted entirely to laboratory work.

Graduate or postgraduate credit may be arranged. Enrollment is limited. Fee—$30.00 for either course.

* * *

1948 Review Courses

Brief Review Courses for Returning Medical Officers and Civilian Physicians

INTERNAL MEDICINE	
Diseases of the Heart	April 5-9, inclusive
Metabolism and Endocrinology	April 19-23, inclusive
Diseases of the Blood	May 10-14, inclusive
Diseases of the Gastro-Intestinal Tract	May 17-24, inclusive
Allergy	May 24-28, inclusive
Recent Advances in Therapeutics	June 1-4, inclusive
Electrocardiographic Diagnosis	Aug. 30-Sept. 4, inclusive
OPHTHALMOLOGY	May 6-8, inclusive
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ROENTGENOLOGY DIAGNOSTIC	April 19-23, inclusive
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* * *

For further information address H. H. Cummings, M.D., Chairman, Department of Postgraduate Medicine, 1313 E. Ann Street, Ann Arbor, Michigan.

You and Your Business

AMERICAN ACADEMY OF GENERAL PRACTICE

Members in forty-two states, the District of Columbia and Hawaii have been enrolled in the newly formed American Academy of General Practice, according to a statement issued by Dr. Paul A. Davis, Akron, Ohio, president of the Academy. Applications are being received at the rate of nearly 100 a week at the headquarters of the national association of general practitioners of medicine and surgery, temporarily located at 20 North Wacker Drive, Chicago 6, Illinois. Mac F. Cahal, executive secretary of the American College of Radiology, is serving as general counsel and acting executive secretary of the Academy of General Practice.

Doctor Davis, president, was last year chairman of the Section on General Practice of the American Medical Association. Other officers of the Academy are: Dr. E. C. Texter, Detroit, vice president; Dr. U. R. Bryner, Salt Lake City, treasurer; Dr. Stanley R. Truman, Oakland, California, secretary.

The American Academy of General Practice was founded June 10, 1947, in Atlantic City, by a group of men who believed that organized effort would best assure the preservation of the general practitioner as the foundation stone of the finest medical system the world has ever known. Numerous small groups of general practitioners throughout the country had organized, but general practice on a national scale had no voice. Therefore, the members and officers of the Section of General Practice of the American Medical Association, meeting out of official session at the San Francisco meeting in 1946, set in motion the machinery that culminated in the founding of the American Academy of General Practice at the 1947 convention at Atlantic City and into which all local groups have been united.

The Academy has no official connection with the American Medical Association except that its members must be members of the American Medical Association. The Academy plans to support and co-operate with the AMA in its high ideals and will also support every other group whose aims are unselfish and for the best interests of the public health.

The purposes of the Academy, as set forth in its constitution are:

1. To promote and maintain high standards of the general practice of medicine and surgery.
2. To encourage and assist young men and women in preparing, qualifying, and establishing themselves in general practice.
3. To preserve the right of the general practitioner to engage in medical and surgical procedures for which he is qualified by training and experience.
4. To assist in providing postgraduate study courses for general practitioners, and to encourage and assist practicing physicians in participating in such training.
5. To advance medical science and private and public health.

To be eligible for membership a physician must be engaged in general practice. He must be duly licensed in the state in which he practices, and must be of high moral and professional character. He must have had at least one year of rotating internship at an approved hospital, or the equivalent in postgraduate training. He must have been in general practice for at least three years. (Special consideration is being given by the Membership Committee to military service). He must have shown interest in continuing his medical advancement by engaging in postgraduate educational activities.

Since its inception the progress in organization has been remarkable. After only three months the membership is larger than all but the two or three largest specialty groups. By stimulating postgraduate study and establishing a standard of quality toward which all conscientious general practitioners will strive, the Academy will promote progress in general practice in much the same way the specialty societies have promoted progress among specialists.

"It seems obvious," said Mr. Cahal, "that high standards and progress among the family doctors, who render at least 85 per cent of the medical care furnished in America, is the most important single goal for the medical profession today. Through the organization of the American Academy of General Practice the means for achieving that goal has been provided."

MIDWEST REGIONAL CONFERENCE

Medical society representatives from six states participated in the Mid-West Regional Conference, sponsored by the American Medical Association on Medical Service, in Cleveland, Sunday, January 4—the day before the AMA interim session opens.

Medical societies participating were: Illinois, Indiana, Kentucky, Michigan, Ohio, and West Virginia.

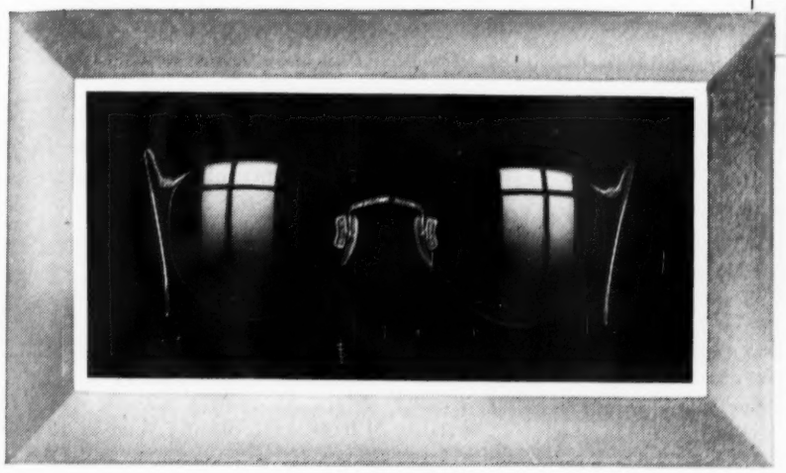
Roundtable discussions keynoted the program. The morning roundtable, "Exploring for Services," was devoted to a discussion of services the AMA can render medical societies. In the afternoon, a roundtable was held on "Modern Medical Public Relations."

The speaker at the luncheon in the Hotel Cleveland was R. R. Sayers, M.D., Washington, D. C., Chairman, Medical Advisory Board, United Mine Workers of America, Welfare and Retirement Fund.

The committee on arrangements was Harold M. Camp, M.D., Monmouth, Ill.; Ray E. Smith, Indianapolis; Charles Lively, Charleston, West Virginia; P. E. Blackerby, M.D., Louisville, Ky.; William J. Burns, Lansing, Mich., and Charles S. Nelson, Columbus, Ohio.

Speakers at the morning roundtable were all from the AMA organization and each told of the services available from the various Bureaus and Councils. They were: W. W. Bauer, M.D.; Thomas G. Hull, Ph.D.;

(Continued on Page 152)



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MIDWEST REGIONAL CONFERENCE

(Continued from Page 150)

J. W. Halloway, Jr., LL.B.; Ralph Creer, A. W. Adson, M.D. The afternoon session speakers were:

"Inventory"—Lester H. Perry, Executive Secretary, Medical Society of the State of Pennsylvania, Harrisburg, Pennsylvania.

"Pay Dirt"—Hugh W. Brenneman, Public Relations Counsel, Michigan State Medical Society, Lansing, Michigan. "Horizons"—George H. Saville, Director of Public Relations, Ohio State Medical Association, Columbus, Ohio.

One of the speakers, giving an address of welcome, C. W. Wyckoff, M.D., president of the Cleveland Academy of Medicine, made a strong plea for changes in the requirements of the specialty boards to require five years of general practice before a candidate is eligible to take the examination for certification. He cautioned against the "early specialization of immature doctors."

Gleanings of the conference: "Any organization is only as strong as the interests of its members." "Government officials are very circumspect in their 'work-shop' contacts since the Harness Committee report." "Entertainment expenses in connection with, or for the extension of business are a deductible charge in computing income tax according to a recent decision." "Articles in the *Reader's Digest* which are biased do more harm in influencing public opinion than all the good works of hundreds of well-intentioned and well-behaved doctors." "Tabulations show that over 82 millions of persons in the United States are now subscribing for some form of accident and health insurance, or prepaid medical services."

GOVERNORS HOLD REGIONAL CONFERENCE

Governors Thomas E. Dewey, of New York; Alfred E. Driscoll, of New Jersey; and James L. McConaugh, of Connecticut; met December 18, 1947, at the Roosevelt Hotel, to exchange views on the possibility of eliminating duplication of taxing fields by the Federal and state governments, adding sickness compensation to the social security structure and increasing unemployment insurance and workmen's compensation benefits. No attempt was made to arrive at final conclusions, but the subject matters may be material for future legislative enactments. Last year Governor Driscoll had urged a sickness compensation program, but failed to get legislative approval. A similar program was urged by the State Federation of Labor, in New York state, but failed in the legislature.

THE TIME IS LATER THAN YOU THINK!

The Washington Post of December 26, 1947, carries the following story:

"TAFT READY TO MAKE ISSUE OF HEALTH BILL

"Senator Taft (R., Ohio) yesterday challenged Democrats to make an issue of compulsory health insurance in 1948, declaring that he will seek Congressional approval for an alternative plan for Government grants to states for medical care.

"The Ohio Senator told a reporter he has noted increasing propaganda activity in behalf of the long beleagured Murray-Wagner-Dingell Health Insurance bill, adding that he expects Democrats to push strongly for its passage in the session beginning January 6.

" 'It's all right with me if the Democrats want to make an issue of it,' said the Ohio Senator. 'I don't think the people of this country want the regimentation involved in a compulsory plan that makes every doctor subject to Government regulation.'

"Taft says he expects President Truman to renew in his State of the Union Message to Congress the appeals he has made in the past for health insurance legislation.

"Democrats to Push Measure

"Senator Murray (D., Mont.), one of the authors of the Murray-Wagner-Dingell measure, said Democrats will make 'every effort' to bring it up next session.

"He said that some changes in its form will be considered, adding that a recent suggestion by Bernard M. Baruch, adviser to Presidents, that the compulsory features of the law be confined to persons with incomes of less than $5,000 a year will be studied.

"Although the coming session of Congress will be devoted largely to debate over European recovery and anti-inflation measures, Taft indicated that he hopes to win approval of certain other measures.

"He mentioned, in this connection, pending legislation for State grants to States to help finance education, a program of increasing veterans housing and his own medical care bill.

"The latter measure is designed to provide medical and hospital care on a State basis, through voluntary contributions, rather than through a system of compulsory health insurance.

"Convention a Factor

"It was the announced intention of the Senate's Republican leadership at the close of this year's regular session of Congress to devote much of the new session to this type of proposal.

"But with the European Recovery Program and proposals to curb the cost of living, plus the necessity of acting on regular appropriations bills, may leave little time for other legislation if the GOP leaders end the session before their party's scheduled June 21 presidential nominating convention in Philadelphia.

"Taft said he will call the Senate Republican Policy Committee together shortly after Congress convenes January 6 to map a program. Chairman Vandenberg (R., Mich.) of the Senate Foreign Relations Committee already has served notice he wants early consideration of the House-approved Mundt Bill authorizing a foreign information program and of legislation approving the St. Lawrence seaway agreement with Canada."

Editorial Opinion

CASE OF A VANISHING DOCTOR

The suggestion of Surgeon General Parran that a system of awarding federal scholarships to medical students be established, in order to insure that future government needs for physicians will be met, serves to dramatize the shortage of doctors that is in some areas of the nation already acute. Dr. Parran estimates that by 1960 the country will need between 50,000 and 55,000 more doctors than are now in prospect.

The lack of general practitioners in rural America presents one of the most serious problems of contemporary medicine. The country doctor has been going down the last lanes of a career that made him a beloved memory, ever since the twentieth century turned the corner of the century on two wheels of the newly arrived automobile. He knew the relationship between the ills of the body and the mind before the arrival of psychosomatic medicine. Besides being a discerning psychosomatist, he was obstetrician, dentist and pharmacist. For decades now the trend has been toward specialization in medicine, and towards the practice of group medicine in clinics.

The progressive shortage of medical personnel in all categories will add to the seriousness of the problems of public health and medical care in the small towns and the American countryside as time goes on. To provide federal scholarships for medical students on a wide geographical basis, upon the agreement of the candidates to serve a stipulated time in one of the federal services, approaches the problem from one important aspect—the rising costs of medical education. Yet medical educators may look askance at the proposal of Dr. Parran that candidates for medical scholarships might be nominated by Congressmen and Senators in the same manner that appointments to the United States Military Academy at West Point and the Naval Academy at Annapolis are made. There is little parallelism between military and medical education. The Government controls and directs education at its military and naval schools, but medical educators want a maximum of freedom, and no hint of political directions.

The crux of our national problem of medical care is the case of the vanishing general practitioner. The plot is to rediscover him and put him back in the countryside. He must have small hospitals and medical centers in which he can practice medicine with the clinical and laboratory facilities modern medical education teaches him to use. These facilities should have a connection with medical schools and urban medical centers to give the modern general practitioner the professional stimulus he needs.

With the passage of the Hill-Burton Act, Congress approved a program which provides for federal grants of one-third the initial construction costs of hospital and medical care facilities, with priorities being given to areas where the need is greatest. Here is a base for a highway to medical care along which we may rediscover the country doctor.—Editorial in *New York Times*, December 14, 1947.

NICE WORK IF YOU CAN GET IT

Directors of Detroit Hospitals have been negotiating for the services of trained anesthesiologists and some interesting things have come to light. Of three men interviewed the salary demands ranged from $1,000.00 to $1,500.00 per month. In addition each stipulated the right to give two private anesthetics a day at a minimum fee of $25.00 per. One wanted in further addition a fee for all anesthetics given by the nurse anaesthetists in industrial and insurance cases. Furthermore while they would supervise the work of the nurse anaesthetists, they would not teach in a school of anaesthesia in which nurses were the students.

We know of no one familiar with medical sociology and economics who isn't concerned about the growing shortage of physicians and who does not subscribe to the principle of supervised, trained medical assistants. The nurse anaesthetist, under good supervision, has done a very essential and creditable job. To arbitrarily refuse to teach anaesthesia to nurses is evidence of very disorderly thinking. The Board Member is best qualified to do that teaching and should feel it is his duty to do so and if there is a clause in the code of the Board of Anaesthesiology which prohibits members from instructing nurses it should be rescinded in the name of common sense.

We think it is obvious that it will be a very long time before there will be enough certified physician anaesthetists to give all anaesthetics. At present there are less than four hundred in the entire country and Michigan alone could more than use up that number if certified anaesthetists were made mandatory.

Now back to the fees demanded by the men referred to. Simple calculation reveals an annual salary of from $20,000.00 to $35,000.00, plus. It should be noted that these men have had no long experience in their field nor have they made any vital contribution to the advancement of medicine. One had not yet completed a three-year residency in anaesthesia—the other two had so little clinical experience that they were not yet eligible to even try the examinations of the American Board of Anaesthesiology for certification.

These boys have taken a very businessy viewpoint toward medicine and are pushing the ancient weapon of supply and demand to the hilt. The grandiose figures asked is very suggestive of briefing somewhere along the line.

They are taking advantage of the panicky scramble of hospital staffs to meet the edicts of a growing central government in medicine, established and maintained by ourselves.

(Continued on Page 156)

NICE WORK IF YOU CAN GET IT

(Continued from Page 154)

They are supplying the most potent argument to protagonists for socialized medicine.

College students (non medics) say of the practice of medicine: "The hardest part is to get into and through a medical school. From then on it's a breeze."—Maybe they're right.—FRANK A. WEISER, M.D., in *Detroit Medical News,* January 12, 1948.

OPERATION OMINOUS

Have your ear-plugs handy—the bombardment is about to resume! Every potential presidential candidate in the field has declared for some sort of public medical care plan. Every plan will be designed, more or less, toward the political regimentation of the practice of medicine.

It is not a secret that the politicians of this country are out to regiment the practice of medicine into socialism. And from socialism to totalitarism is but another step. The politician is, no doubt, in greater fear of this trend than are the doctors of medicine. He has had the tail of the tiger thrust into his hand and he fears to let go. He is afraid to ignore the cry of "Wolf!" even though he knows it is a false alarm. He needs our help.

On the same side of reason we have the fact that the year 1947 established a record all-time low in mortality and an all-time high for national health. The improvement of the public health since 1900 is nothing short of a miracle based on standards existing at the beginning of the century. Such a record is not an accident, nor is it a miracle performed by politics. It is, to the contrary, the barometer of the steady progress in the improvement of medical care wrought by a hard working medical profession under the stimulation of a system of free enterprise. It is an unanswerable rebuttal to those who seek to socialize the practice of medicine in America.

Until our federal government began to force patronage on a free and enterprising people, we always found a way to solve our problems without turning to Washington with our alms-cup in our hand. We can still work our passage if freed from the poison touch of politics. The practice of medicine with its unparalleled record for the past 47 years is to become the political football of 1948. In your tampering with medicine, Mr. Politician, you are playing with Socialism and courting Communism. Remember, as Medicine goes, so goes the Nation!—A.C.P.—Editorial, *Bulletin Genesee County Medical Society,* January 13, 1948.

Michigan Medical Service

The Doctors of Medicine Prepaid Health Plan for Michigan

Michigan Medical Service was organized in March, 1940, by the Michigan State Medical Society under a special act passed in 1939 by the Michigan State Legislature. The plan proved to be popular and rapid enrollment gains have been made since then. As of September 30, 1947, Michigan Medical Service had over 3,000 enrolled groups covering 909,120 members. This is approximately one-sixth of the population of Michigan.

Proof of the popularity of Michigan Medical Service and the Blue Cross coverage is the fact that many of the large industrial groups such as General Motors and Chrysler have enrolled in the plan. At the present time there are over 3,000 employed groups enrolled.

Enrollment of new groups is rather strictly controlled. To qualify as a group, an organization must employ five or more people. In an organization of five people, all must enroll for the group to be acceptable. In an organization of six to eleven people, all but one must enroll. At least ten must enroll in groups of twelve or thirteen people. In large groups, 75 per cent enrollment of the employees is required before the group is acceptable.

Re-enrollment is conducted annually in groups of 100 employees or less, semiannually if the group is larger. A recent regulation requires that at re-enrollment time no new applications will be accepted unless there are enough applications to bring enrollment up to 75 per cent or better. When re-enrollment does not result in 75 per cent participation, new applications will be acceptable if the new applications bring total enrollment up to 65 per cent and at least 20 per cent of these not enrolled apply.

The JOURNAL

of the Michigan State Medical Society

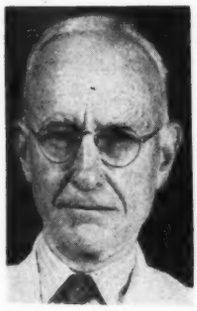
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOLUME 47 FEBRUARY, 1948 NUMBER 2

The Early Diagnosis of Pancreatic and Ampullary Growths

An Evaluation of their Surgical Treatment

By Allen O. Whipple, M.D.
New York



THERE ARE certain factors characteristic of pancreatic and ampullary tumors which determine their diagnosis, treatment and prognosis: (1) The great majority of these growths are carcinomas. (2) The site of the tumors varies but determines (a) their malignancy rate, (b) their early clinical symptoms, (c) their laboratory findings, (d) their operability, and (e) their prognosis.

The carcinomas of the ampulla are usually of the papillary or fungating type, are less malignant, give early signs of obstruction, but because of a tendency to ulcerate, produce at times a misleading intermittent jaundice. The carcinomas of the terminal common duct cause an early progressive jaundice, but produce a late decrease, or no decrease at all, in the flow of pancreatic juice. The carcinomas of the pancreas give symptoms and signs, early or late, depending upon the part of the pancreas involved. The presence of jaundice and the time of its appearance depend upon the initial site of the tumor—in the head, body, or tail of the pancreas.

Because of the proximity of the ampullar area to other parts of the upper gastrointestinal tract and the similarity of many of the symptoms common to both areas, cancers of the ampulla and of the head of the pancreas and the common duct are frequently confused with benign or functional disturbances of the stomach, duodenum and biliary tract. If a gastrointestinal series is negative in a patient complaining of indigestion and loss of weight, the diagnosis of gastric neurosis is too often made. Yet the lesion may be a carcinoma of the head or body of the pancreas. If the patient is jaundiced and has epigastric pain, the diagnosis of gallstones is made, a low fat diet is prescribed, and a conservative regime is followed for weeks or months in the hope that the jaundice will clear. Further differential diagnostic tests, to determine the presence of a malignant lesion in the ampullar area, are seldom carried out, and the patient is not referred to the surgeon until the lesion has become irremovable.

Diagnosis

Clinical History.—Pain, jaundice and digestive disturbances depend largely on the site of the growth (Fig. 1). If the growth is at the ampulla (Site 1), pain is usually absent but jaundice appears early with acholic stools; the presence of red blood cells and the absence of bile and pancreatic ferments in the duodenal aspiration studies are characteristic. If the carcinoma ulcerates, there may be a temporary remission of jaundice. If the growth is in the head of the pancreas (Sites 2 and 3), pain is usually present, often radiating to the back, and may be of a severe boring type. Jaundice may appear early if the growth is near the common duct (Site 2), but if in the lower

Presented at the eighty-second annual session of the Michigan State Medical Society, Grand Rapids, Michigan, September 23, 1947.

end of the head (Site 3), it will be a late sign. Pancreatic ferments are usually diminished or absent, according to the site of the growth in blocking the main pancreatic duct. Fat indigestion

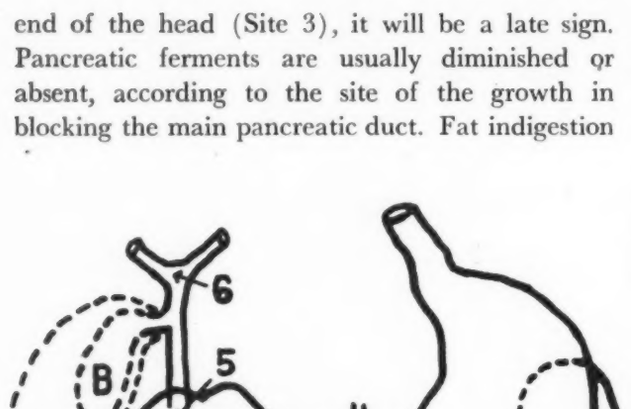


Fig. 1. Diagram to show sites of malignancy in the ampulla, pancreas and common duct.
(1) Ampulla. (2 and 3) Head of the pancreas. (4) Body and tail of the pancreas. (5) Common duct. (6) Common hepatic duct. (A) Distended gall bladder, found with growths at Sites 1 and 5. (B) Collapsed gall bladder, found with growth at Site 6.

and loss of appetite with early weight loss is usual. With the growth in the body and tail (Sites 4 and 4'), fortunately a rare site, the diagnosis is much more difficult. Jaundice is absent. Pain, however, may be severe, radiating to the back. Asthenia and loss of appetite and weight are marked. Ptyalism may be present. Laboratory tests are not informative. Severe epigastric pain, radiating to the back, with negative laboratory tests, points to a carcinoma of the body or tail of the pancreas. With a carcinoma of the common duct below the hepatic duct (Site 5), jaundice appears gradually but progressively and without pain. Duodenal studies show little or no bile but normal pancreatic ferments. X-ray studies or cholecystography are not informative. With the growth in the hepatic duct above the cystic duct (Site 6) the symptoms are the same as in Site 5. The difference between these two sites is that in Site 5 the gall bladder is usually enlarged (Fig. 1, A), and in Site 6 it is collapsed (Fig. 1, B). Almost invariably with the appearance of jaundice, itching of the skin is a prominent symptom. It may be so severe as to dominate all other complaints and warrants a sidetracking operation, if only as a palliative procedure.

Physical Signs

In Sites 1 and 5, with jaundice, the gall bladder is enlarged (Fig. 1, A), fulfilling Courvoisier's Law, unless there has been an antecedent chronic cholecystitis with gallstones. In Site 6 the gall bladder is not enlarged or palpable (Fig. 1, B). In all of these lesions, with jaundice, the liver is usually somewhat enlarged, and if markedly so, it may override the gall bladder even when the latter is distended. Jaundice, as a physical sign, may or may not be present, according to the site of the lesion. A tumor mass may be palpable, but this is the exception, and failure to feel a mass in no way rules out a malignant tumor.

Laboratory Tests

Blood Studies.—A rising serum bilirubin accompanies increasing jaundice, as does the alkaline serum phosphatase, in all cases of extrahepatic obstruction. Blood amylase studies are not informative in chronic lesions of the pancreas.

Duodenal Intubation Studies.—These should be done with the double tube, one in the stomach to aspirate gastric contents, the other in the duodenum for aspirating bile and pancreatic juice. With the tube in place, the gastric juice is first aspirated, then the duodenal bile is aspirated, then mecholyl is given hypodermically for vagus stimulation of concentrated pancreatic juice. This should be aspirated into ice-cold test tubes for biological assay. The techniques for this procedure have been clearly described by Dr. L. Bauman in the *American Journal of the Medical Sciences,* 207:281, 1944. Both the bile and pancreatic juice should be sampled for red cells. Their presence is significant and indicates an ulcerating carcinoma.

X-ray studies of the duodenum, following the swallowing of barium, may show a deformity of the duodenum or a filling defect. A positive finding is significant. A negative fluoroscopic examination and a negative film do not rule out a tumor. The presence of calcareous shadows in the flat film of the upper abdomen points to a chronic pancreatitis or a cyst, rather than to a neoplasm.

Treatment

It must be clearly appreciated that the malignant lesions of this area result invariably in death,

if untreated, in a period of six to eight months. Surgery, either radical or palliative, offers the only relief. Chronic inflammatory lesions of the pancreas may give symptoms entirely indistinguishable from the malignant tumors, and even at the operating table they may not be differentiated. For this reason, an early diagnosis while the lesion is small, confined to one of the sites mentioned, and before lymphatic, vascular and contiguous spread has occurred, determines the operability and prognosis. For this reason, patients with suggestive symptoms and definite findings should be operated upon early, and not studied to death.

The radical surgery that is now being carried out in these lesions is only of some ten years' duration, for before 1935 such lesions were considered incurable and any surgery that was done was purely of a palliative nature. But five factors have made possible the removal of the head of the pancreas, the entire duodenum, the pylorus and the terminal common duct, as well as total pancreatectomy:

1. Preoperative, operative, and postoperative transfusion.
2. Maintenance of protein, salt and fluid balance and appreciation of its importance.
3. Chemotherapy in preventing or combatting infection.
4. Advances in surgical technique, with the use of so-called silk technique and the use of finer instruments that go with it.
5. The use of Vitamin K.

By the use of these advances the long and careful operations necessary in these radical procedures, can now be done. The clock is no longer the measure of a surgeon's ability.

Palliative Procedures

In the majority of patients with the lesions described, a radical excision of the growth is not feasible at present because of the delay in sending these patients to the surgeon. In the majority of these delayed cases, jaundice with severe pruritus and impaired fat digestion are dominant symptoms. These unfortunates can be made more comfortable for a period of weeks or months by a short-circuiting operation between the gall bladder and the duodenum or jejunum. The stomach should not be used because of the greater danger of a cholecystitis and cholangitis.

The Results of Radical Surgery

No attempt is made in this presentation to give the techniques and the details of the radical operations. Many modifications of the one-stage or two-stage procedures have been described; the procedure should be made to fit the patient, not the patient to fit any one modification.

From many surgical clinics individual cases have been reported. But in four clinics especially, a fairly large number of these radical operations have been done: forty-nine at the Mayo Clinic, twenty-seven at the Billings Hospital, Chicago, forty at the Columbia-Presbyterian Clinic, and forty-nine at the Lahey Clinic—165 cases at the last reports from these centers. These figures include fourteen total pancreatectomies, not all for carcinoma. The over-all postoperative mortality is still high, some 30.8 per cent, but this includes all the early reported cases, and the operative risk has been steadily reduced in the last five years.

Dr. Waugh, from the Mayo Clinic, reports nine patients living, one year to three years after operation, with an average of two years. Dr. Brunschwig, from Chicago, reports six patients living, from one to four years, the longest four years, and back to normal activities. The series at the Presbyterian Hospital shows six patients living from six months to six years. The latter patient had the first one-stage radical operation reported by the writer. She had a carcinoma of islet cells in the head of the pancreas without symptoms of hypoglycemia. Unfortunately, at the present time, although as active as ever, this patient shows evidence of liver nodules.

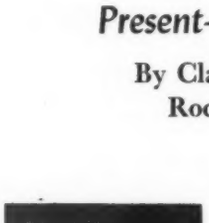
Dr. Catell, of the Lahey Clinic, has had forty-nine resections with only eight postoperative deaths (16.3 per cent), a very remarkable record. Half of these patients had carcinoma of the ampulla, and the rest had carcinoma in the pancreas, except for two carcinomas in the duodenum and two of the common duct. Forty-two per cent are living; one patient has lived sixty-two months, several over three to four years. Two thirds of the operations were in two stages, the other third in one stage.

At best, the results are not brilliant, but some of these patients are given a life activity and expectancy that they could not otherwise have. As patients are diagnosed earlier and as the techniques for the radical operations improve, the immediate and late mortality should show real improvement.

Carcinoma of the Rectum and Lower Part of the Sigmoid Flexure

Present-Day Management

By Claude F. Dixon, M.D.
Rochester, Minnesota



THE SIGMOID flexure of the colon is, on the average, 40 cm. long, and the rectum is approximately 12 cm. long. The two structures, then, together have a length of approximately 52 cm. or about 20½ inches, which certainly does not seem impressive in comparison with the total length of the large intestine, which is about 150 cm. or 59 inches. Yet, it is a fact that carcinomas which occur in these 20½ inches of the intestinal tube often constitute a more baffling therapeutic problem than do carcinomas situated anywhere else in the large intestine. The reason for this is the complexity of the therapeutic and physiologic factors involved, as well as the relatively small portions of tissue with which the surgeon is able to work. That is, the lesion itself must be removed adequately, yet, despite, the resultant loss of the involved part of the tube, provision must be made for the exitus of the fecal stream. The result is that when a distal segment is the site of a carcinoma, an artificial anus or colonic stoma often must be created.

In many instances, psychic as well as physiologic considerations tend to make the establishment of such a stoma a formidable problem for the patient to face, and hence, a difficult decision for the surgeon to make. On the other hand, the surgeon as well as the patient some times is amazed at the remarkable ease and comparative comfort with which many patients who have colonic stomas are able to maintain themselves.

There can be no question of the fact that preservation of the continuity of the bowel after excision of a malignant process is most desirable, but it is not always possible. In the present communication I purpose to consider, so far as limitations of space permit, those therapeutic procedures for carcinoma of the rectum and lower part of the sigmoid flexure which I have found to be most feasible and most productive of satisfaction for the patient.

Read at the eighty-second annual session of the Michigan State Medical Society, at Grand Rapids, Michigan, September 24, 1947.
Dr. Dixon is from the Divison of Surgery of the Mayo Clinic.

Carcinoma of the Rectum

Local Excision.—It is an unfortunate fact that local excision of malignant neoplasms of the rectum can be accomplished with safety in only a very few instances. This cannot be emphasized too strongly.

When a carcinoma is localized to the rectum proper, and when this lesion does not involve more than the mucosa and submucosa, it may be possible adequately to excise the neoplasm without prolonged interference with functional activity. In certain cases the surgeon must completely divide the anal sphincter muscles in order to achieve exposure which will be sufficient for excision of the lesion.

Even so, it remains true that most malignant processes of the rectum attain to such size and extent before they are recognized that local excision becomes impossible. Hence, at present it is still valid to point out that, in most cases, carcinoma of the rectum necessitates some form of radical surgical operation.

Radical Surgical Treatment.—For a while, Hochenegg's so-called pull-through operation seemed to offer great hope in the surgical treatment of carcinoma of the rectum. In this procedure, which dates from 1888, the initial approach is abdominal, so that the pelvic colon can be freed. Next, the perineal approach is employed, so that either the carcinous segment of the rectum or the entire rectum can be excised. Finally, the normal distal end of the freed sigmoid colon is pulled through the anal sphincter muscles and anchored.

I think there are at least two reasonable objections to Hochenegg's operation. First, serious interference with the nerve supply of the internal anal sphincter may be brought about by the operation, which means that involuntary control of the bowel would be abolished. Second, the Hochenegg operation does not allow radical excision of the perirectal tissue. Such excision is now considered to be important, because the perirectal tissue often has been found to be the site of secondary spread of the malignant process.

It appears that currently Hochenegg's operation, which is utilized by Babcock, Bacon and others, is again being accorded rather extensive favor. Yet, so far as I have been able to judge from my own experience, the procedure has only limited application. Like the local excision which I mentioned, the Hochenegg operation probably ought to be used only for small, localized carcinomas of the rectum.

The Miles combined abdominoperineal operation and the Kraske or Lockhart-Mummery procedure constitute methods for more radical excision of carcinomas of the rectum. In the Miles operation a permanent single-barrel abdominal colonic stoma is created; in the Kraske or Lockhart-Mummery operation a permanent loop type or double-barrel colonic stoma is established and is followed by resection of the rectum by the perineal approach. Such resection as a rule is a secondary operation, carried out ten to fourteen days after the primary procedure.

My own view is that the Miles abdominoperineal operation, carried out in a single stage, may not adequately satisfy the needs for which it was designed. That is, the extent of radical excision of tissues, as between the abdomen and rectum, is not equitable, as this operation generally is performed. The surgeon who carries out the operation usually recognizes and even emphasizes the importance of radical excision so far as the abdominal aspects of the technique are concerned, but at the perineal or final stage of the operation he does not radically excise the perirectal tissues which so frequently are the sites of direct extension of the process or spread of it by lymphatic pathways. Miles, when he first reported his procedure, declared that carcinoma of the rectum rarely if ever spread laterally, but this is a statement that has not been substantiated.

It is incontestable that the combined abdominoperineal operation has often effected permanent relief of carcinoma of the rectum. But it is also true that some patients who underwent this operation, and were expected to be permanently relieved thereby, have had to seek additional treatment because of recurrence of the malignant process in the perineum. Explanations of such recurrences are varied; I think that in part, at least, they are caused by remaining malignant tissue or carcinous lymph nodes which in some instances could have been eradicated if the perirectal fat, fascia propria and levator ani muscles had been more widely excised at the time of operation.

I do, however, perform a combined abdominoperineal operation for carcinoma of the rectum, but I carry it out in two stages. This permits much more radical excision of questionable tissues than otherwise would be possible; I think it is also less productive of shock, especially among patients sixty-five years old or more, than is the one-stage operation. Hence, it is reasonable to assume that the morbidity and mortality rates associated with the procedure are lowered appreciably. The technique which I employ follows:

At the initial procedure, the abdominal cavity is approached by means of a low rectus incision. The colon is divided between two Payr clamps at a site near the level of the sacral promontory. The sigmoidal mesentery, including the superior hemorrhoidal vessels, is divided and ligated. The posterior parietal peritoneum is incised only at the base of the mesentery, where the superior hemorrhoidal vessels are clamped, divided and ligated. The left ureter also is identified and isolated. Next, the proximal end of the distal sigmoid is inverted and the segment of bowel is dropped free into the pelvis. The small defect in the posterior parietal peritoneum is repaired by the placing of two or three interrupted catgut sutures. Finally, the distal end of the descending colon is brought through the primary incision or through a small muscle-splitting incision in the left iliac region, so that a single-barrel stoma is created. In the performance of colostomy the anterior peritoneum never is sutured to the bowel, which is held in place by means of a Payr clamp.

On the day after the operation, the colon is opened by means of cautery, immediately beneath the clamp. The clamp automatically becomes detached on the fifth or sixth postoperative day. After a period of ten to fourteen days, the colonic stoma is functioning satisfactorily. Such patients are out of bed on or about the fifth postoperative day.

The second and final or perineal stage of the operation is carried out with the patient under the influence of low spinal or sacral anesthesia produced by 100 to 120 mg. of procaine hydrochloride. The patient is placed in a reverse Trendelenburg position, and the distal segment of bowel, which includes the rectum and sigmoid flexure of the colon, is removed. A fluid ounce

(30 c.c.) of merthiolate is instilled through the anus. Swabbing of the anorectal tissues must not be done, since this maneuver might force some of the malignant cells from the rectal neoplasm into the lymphatic or circulatory system. Furthermore, swabbing might cause certain types of bacteria which occur in the lesion secondarily to be dislodged into the same channels, producing such serious or fatal infectious processes as species of Bacteroides cause, a complication that I have emphasized in previous publications. Next, the anus is closed by means of a purse-string type of suture. Then, with the cautery, an incision is made; this incision begins at the level of the base of the coccyx and extends about 3 inches (8 cm.) lateral to the anus downward to a midpoint in the perineum. After this, a similar incision is made on the opposite side. The coccyx is then disarticulated and removed, and the fascia propria is incised in the coccygeal region. Now the perirectal fat, fascia and levator ani muscles are widely removed from both sides of the bowel. The rectum is next freed by cautery dissection from the prostate gland or posterior vaginal wall. In the male, caution must be taken during excision to avoid injury of the membranous portion of the urethra. After this, the upper part of the rectum is freed from the hollow of the sacrum by the surgeon's passing his left hand cephalad between the bowel and the sacrum until the inverted end of the sigmoid is reached. It is then grasped and drawn downward into the perineal wound; the lateral ligaments or rectal stalks are divided and the entire distal segment is removed. Five grams (75 grains) of microcrystalline sulfathiazole is placed in the peritoneal cavity. The perineum is closed transversely, and the perineal wound is packed by means of, first, a large square of synthetic silk, and second, a 4-inch (10 cm.) gauze pack varying in length from 4 to 6 feet (122 to 183 cm.). The cutaneous edges are approximated about the pack with catgut sutures. The pack is removed on the third postoperative day. On the fifth or sixth postoperative day, daily sitz baths are begun.

I have performed this particular operation about seventy-five times, without a death. After the operation the patient ought to remain in bed in the hospital for ten to fourteen days. In my experience, complete healing has ensued in six to twelve days.

It will be noticed that in the first stage of this technique the superior hemorrhoidal vessels are sectioned. This in no case has caused necrosis of the distal segment of bowel, but some degree of microscopic necrosis of the carcinous lesion does result.

When the operation is carried out thus, I believe it is radical, and I think it is valuable.

The so-called Kraske operation for carcinoma of the rectum is both safe and sufficiently radical, in my opinion. The procedure consists of performance of an abdominal loop or double-barrel type of colostomy, followed in ten days or two weeks by perineal or posterior resection of the rectum and rectosigmoid. The details of the technique are well known; I shall merely present those points which in my experience have produced the most satisfactory results.

In the Kraske procedure the abdominal cavity is entered and explored by means of a low left rectus incision. A loop of distal descending colon or sigmoid is brought out and fixed in the midportion of the incision. Fixation is accomplished by the passing of a rubber-covered glass tube through the mesentery of the bowel. The abdominal wall then is closed about the small loop or knuckle of the exteriorized portion of colon. Great caution should be exercised in the performance of this type of colostomy so that it can be certain that the abdominal wall will not be closed too tightly around the bowel. If this error is made, marked edema of the exteriorized portion of the bowel will ensue, causing a poorly functioning colonic stoma. Also, any slack or redundancy of that segment of the bowel proximal to the site of the colostomy often will permit the proximal segment of the bowel to prolapse, which means that amputation will be required. With a single exception, the second and final stage of the operation is carried out as is the two-stage combined abdominoperineal operation which I have already described. The exception is that in the Kraske type of operation with performance of loop colostomy, the peritoneum is opened during resection of the rectum, and the remaining distal end of the sigmoid flexure is inverted and replaced in the peritoneal cavity. The posterior incision is packed as previously described herein.

Carcinoma of the Lower Part of the Sigmoid or Rectosigmoid

The Hartmann Operation.—For a long time I had been impressed by the promising results obtained by the Hartmann operation for carcinoma of the rectosigmoid. Briefly, the details of this technique are as follows:

The operation is characterized by a one-stage resection in which the rectosigmoid or upper part of the rectum is cut across distal to the neoplasm. The upper part

of the rectum is then inverted, and the remaining pelvic portion of the colon, together with the neoplasm, is mobilized. Then the bowel is divided in the region of the distal portion of the descending colon. After the intervening segment of bowel has been removed, the proximal end of the descending colon is brought out as is done in the performance of single-barrel colostomy.

When I investigated some of the results of this operation, I noticed that many of the patients for whom it had been done were alive and in good health years later, without evidence of recurrence of the malignant process in that part of the rectum which remained. After I had reviewed a considerable number of specimens of lesions removed during this type of operation, I was further impressed by the fact that the site of amputation in the rectosigmoid or rectum invariably had been in close proximity to the carcinous process.

The relationship between the site of amputation and the apparently superior survival rates among the patients was provocative. Was it valid to conclude that carcinoma in this particular region or segment of bowel rarely, if ever, metastasizes downward? Diligent search of the pertinent literature indicated that carcinoma only very rarely metastasized downward into the lymph nodes for more than 2 cm., and that when such spread did occur, the proximal lymphatic structures were blocked by the carcinous process.

Low Anterior Resection and Preservation of Intestinal Continuity.—With this information as a reasonable basis, I interested myself in the development of a procedure which would permit re-establishment of the continuity of the bowel after excision of the carcinous lesions of the lower part of the sigmoid. I began to employ so-called low anterior resection, followed by re-establishment of the continuity of the bowel. My opinion is that lesions which occur 6 to 20 cm. from the anal margin can be treated suitably by this procedure. The technical details follow:

The abdominal cavity is opened by means of a long, low, left rectus type of incision. An exploratory procedure is carried out. The patient is in the deep Trendelenburg position. First, the liver is palpated to detect or rule out distant metastasis. Next the colon, beginning with the cecum, is examined to discover or rule out the possible coexistence of other malignant lesions. The low sigmoidal lesion is palpated. If resection is thought to be feasible, the procedure is begun by incision of the fused lateral peritoneum from near the splenic flexure of the colon down to the pelvic peritoneal fold. The left ureter is identified and isolated. Next, the posterior parietal peritoneum is opened mesially at a point immediately cephalad to the superior hemorrhoidal vessels. The mesial peritoneal incision is extended downward and along the base of the mesosigmoid and is curved around the rectovesical or rectocervical neck. The entire pelvic colon, rectosigmoid and upper part of the rectum are then mobilized by freeing the mesosigmoid from the sacrum, beginning at the sacral promontory and extending to the tip of the coccyx, by means of sharp and blunt dissection. The rectal ampulla is next mobilized from the vagina or seminal vesicles and prostate gland. In carcinoma of the rectosigmoid situated at the pelvic peritoneal fold, it is necessary, in order to obtain satisfactory mobilization, to divide and ligate the lateral rectal stalks or ligaments, which contain the middle hemorrhoidal vessels. When complete mobilization of the entire pelvic portions of the colon and upper part of the rectum has been obtained, the superior hemorrhoidal vessels are divided and ligated, as are the vessels in the mesentery of the distal portion of the descending colon. The latter is then divided between Payr clamps.

Long, especially constructed curved rubber-covered clamps are then placed across the bowel, usually across the upper portion of the rectum, or as far distal as possible from the lower margin of the neoplasm. The bowel is now divided between the clamps, and that part of the pelvic colon containing the tumor is removed. The descending colon, already sufficiently mobilized, is brought down and anastomosed as an open end-to-end procedure. Chromic catgut is employed. Five grams (75 grains) of sulfathiazole are sprinkled into the hollow of the sacrum. A long Penrose cigaret drain is employed, one end being inserted into the sacral hollow near the tip of the coccyx and the other end being brought out through the lower end of the abdominal incision. This drain is lifted out—not pulled out—on the eighth or ninth postoperative day. The lateral and mesial layers of the posterior parietal peritoneum are sutured to the edges of the bowel, thus obviating any defect in the pelvis. The suture line of the anastomosis is kept intraperitoneal, if possible; however in low sigmoidal lesions this sometimes is impossible. Thus, resection and re-establishment of continuity of the bowel have been carried out.

Since such a type of anastomosis is difficult, it is my practice to establish a temporary loop type of transverse colonic stoma. This is accomplished by the bringing of a small segment of the transverse colon to the exterior in the upper end of the primary incision. This segment of the bowel is held in place by means of a rubber-covered glass tube passed beneath the gut through its mesentery. The abdomen is then closed about the loop of exteriorized colon. The latter is opened by means of cautery on the day after resection. Such a colonic stoma may be closed within three or four weeks after resection. Spur-crushing clamps are employed prior to closure of the stoma in about 75 per cent of the cases. An intraperitoneal type of closure always is employed.

From 1930 through 1945 I performed low anterior resection for about 500 patients. At abdom-

inal surgical exploration, 340 of these 500 patients had no evidence of distant metastasis, despite the fact that in many instances involvement of those lymph nodes adjacent to the primary lesion had been detected.

Hence, it seems apparent that in these 340 cases low anterior resection was carried out in the hope that permanent relief would be obtained thereby. The distance of the primary malignant lesion from the anal margin, as disclosed at proctoscopic examination, ranged from 6 to 20 cm. In ninety cases the distance of the malignant lesion from the dentate margin ranged from 6 to 10 cm. In the remaining 250 cases the distance of the carcinoma in the rectosigmoid and sigmoid from the anal margin ranged from 11 to 20 cm.

In the earlier operations the mortality rate per 100 patients varied from 9 to 13 per cent. In this respect I may point out that since the sulfonamide compounds were introduced, the hospital mortality rate associated with the procedure has decreased impressively. For instance, from 1941 to 1945 I carried out conservative low anterior resection for 184 patients, with only two deaths. In one case death was caused by infection with Type III pneumococci; in the other case death was attributed to coronary disease.

The five-year survival rate in 272 cases in which I have performed the two-stage low anterior type of resection, with re-establishment of the continuity of the bowel, for carcinoma of the lower part of the sigmoid flexure, is 67.7 per cent. This rate, I am convinced, compares favorably with the rate associated with any type of surgical procedure for the condition in question, including those operations which necessitate establishment of a permanent colonic stoma.

Chemotherapy and Preoperative and Postoperative Care

Chemotherapy.—A number of surgeons have voiced doubts as to the value of the sulfonamide compounds in procedures such as those concerned herein. I think, however, that the work of Poth and his associates, which has been substantiated clinically by Benson and me, demonstrates conclusively that the preoperative use of sulfasuxidine or sulfathaladine, plus the use of sulfathiazole at the completion of each operation, greatly diminishes the incidence of infection. This, in turn, means that the morbidity and mortality rates have been lowered thereby.

According to the plan which I employ at present, the administration of sulfasuxidine is begun five to seven days before the date of operation. During this period a total of 1,000 to 1,200 grains (65 to 78 gm.) is given orally in divided doses, at intervals of four hours.

At the completion of resection and closure of the colonic stoma, 75 grains (5 gm.) of sulfathiazole is placed in the abdominal cavity near the site of anastomosis.

Preoperative and Postoperative Care.—A nonresidue diet, high in carbohydrate value, is prescribed. Gentle catharsis is assured by the administration of sodium phosphate during the first two days before the operation; in this period 2 to 4 drams (about 8 to 16 gm.) are given each four hours. Likewise, beginning two days before the surgical treatment, the patient's rectum is gently irrigated twice daily with saline solution.

On the third day postoperatively 2 fluid drams (7 c.c.) of paregoric is administered each three hours.

Summary and Conclusions

The surgical treatment of carcinoma of the sigmoid flexure and rectum often is more difficult than that of carcinoma situated anywhere else in the large intestine. It is not always possible to reestablish continuity of the bowel after excision of a carcinous lesion in the sigmoid and rectum, for local excision of such a neoplasm is possible only in a very few cases. The merits and disadvantages of Hochenegg's so-called pull-through operation for carcinoma of the rectum are considered, as are the Miles and Kraske or Lockhart-Mummery procedures. A modification of the Miles operation is presented, and mention is made of the value of chemotherapy and of certain details of preoperative and postoperative care.

MSMS

CONSUMERS IN NO RUSH FOR CREDIT

The Nation's consumers have showed no rush to get deeper into debt since all federal controls over credit were dropped.

A national survey of department store and credit groups by the Associated Press disclosed little if any freer use of credit and only limited expansion of sales volume because of more liberal credit.

A handful of exceptions threw the general picture into sharper relief.

This behavior contradicted widely circulated predictions of a rush to buy "on the cuff" when elimination of controls paved the way for freer terms.

Hemochromatosis

Review of Literature and Presentation of a Case

By Henry L. Smith, M.D., F.A.C.P.,
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HENRY L. SMITH, M.D.

TROISIER, in 1871, first described a "bronze cachexia" occurring in diabetes. Ten years later, Hanot and Chaufford called attention to a condition which they termed "bronze diabetes." It is undoubtedly true that these diseases were the same as that described and named "hemochromatosis" by von Rechlinghausen in 1899. It consisted essentially of a rare disorder of iron metabolism, characterized by a clinical triad of hepatic enlargement, diabetes and pigmentation of the skin.

The following case report, that of a forty-four-year-old man, is presented because of its typical clinical features and for a re-appraisal of the literature on the subject.

Case Report

A forty-four-year-old white man was admitted to the Mount Carmel Mercy Hospital on April 30, 1946, with chief complaints of constipation and a 20-lb. weight loss in six weeks. He had noted flatulunce and some epigastric pain after meals. Two weeks previously he had an attack of weakness, dizziness and palpitation. His past history was essentially negative except for severe burns which were suffered in a building explosion in 1936. Soon after that, he noted a brownish pigmentation appearing over his arms, abdomen and legs.

On physical examination, it was noted that his skin was dry and had a peculiar dirty brown scaly pigmentation, particularly on the neck, arms, umbilicus, groins, legs and ankles. His sclerae were slightly yellow. A large hard mass was palpated in the epigastric region, extending about four finger-breadths below the right costal margin. The extremities showed evidence of old burn scars.

The admission blood count showed red blood cells, 3,750,000; hemoglobin, 11.6 gm. per 100 c.c.; white blood cells, 6,400, with 46 per cent neutrophiles, 7 per cent stab cells, 4 per cent eosinophiles, 1 per cent basophiles and 42 per cent lymphocytes. Subsequent blood counts varied slightly from the above. The admission urine showed a 4-plus sugar with no acetone. The following week the urines varied from a 4-plus sugar with 3-plus acetone to a trace of sugar and no acetone in the terminal three days. The fasting blood sugar ranged from 173 to 200 mg. per 100 c.c. The icterus index was 10. The blood chloride was 450 mg. per 100 c.c. The Kahn test was negative. The cephaline cholesterol flocculation test was 2 plus. Taken terminally, the nonprotein nitrogen was 53 mg. per 100 c.c. of blood.

He was put on a regime of fluids and insulin according to fractional urine analysis and fasting blood sugars. Terminally, he was given glucose intravenously. His course was increasingly downhill. He developed ascites, anuria, coma and finally expired after a sixteen-day hospital stay. The clinical diagnosis varied from Addison's disease or a malignancy of biliary tract to hemochromatosis. The latter was confirmed by a Fishback skin test, which gave a positive reaction, and also by a skin biopsy which was positive for hemosiderin.

Autopsy.—The body was that of a well-developed and only fairly well-nourished forty-four-year-old white man weighing approximately 170 pounds. The skin had a peculiar bronze-like sheen throughout, which was more pronounced on the neck, axillae, hands, umbilicus, groins, legs and ankles. Several white scarred areas covered the left shoulder, wrist, right elbow, back, right tibia and left ankle.

The peritoneal cavity contained 1,000 c.c. of clear yellow fluid. The liver lay four finger-breadths below the xiphoid process. The spleen extended 2 cm. below the left costal margin. The thyroid weighed 20 gm. and had a peculiar rusty brown tinge. The heart weighed 510 gm. The myocardium was orange-brown in color. The left ventricle was dilated and hypertrophied. Moderate enlargement was present of all cardiac chambers. The right lung weighed 400 gm. The left lung weighed 390 gm. and its lower lobe was passively congested. The spleen weighed 450 gm. Its cut surface was firm and red to mahogany brown in color, with distinct Malpighian bodies. The lymph nodes, particularly the mesenteric, periaortic, and iliac, were firm and dark brown in color. The liver weighed 2,600 gm., and its external surface was studded with firm, hob-nailed nodules having a rusty brown appearance. On application of potassium ferrocyanide and HCl, the brown turned blue. The cut surface revealed a firm brown parenchyma circumscribed by a varying amount of connective tissue. The portal radicles were dilated. The gall bladder was essentially normal. The pancreas weighed 150 gm. and presented a dark brown surface. The esophagus was grossly normal. There were no varices. The stomach mucosa contained some brownish pigmented areas. The adrenals were necrotic and revealed a thinned-out brownish cortex. Each kidney weighed 200 gm. and was brown in color. The bladder, ureters and sex organs were normal. The head and spinal cord were not examined.

Microscopic Findings.—Sections of skin revealed atrophic keratotic squamous epithelium in which the rete pegs were very small. The basal cell layer contained an

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increased amount of brown pigment. The underlying dermis was the site of a low-grade chronic inflammatory process consisting of a few lymphocytes and plasma cells and perivascular infiltration. In addition, a few large mononuclear cells containing brown pigment in the cytoplasm were noted. Similar brown pigment was noted in and around small sweat glands. Some of the pigment was deposited in the sweat gland epithelium. Large intra- and inter-cellular brown pigment deposits were present in the thyroid sections. The greater portion of the pigment was deposited in the vesicular epithelium resulting in some degeneration and atrophy of these elements. The lungs showed pulmonary edema and congestion. Sections of cardiac muscle revealed extensive brown pigment deposits throughout the myocardium. The deposits were most prominent near the nuclei. These deposits resulted in a marked parenchymatous degeneration with irregular hypertrophy of the remaining viable fibres. The coronary arteries as well as the aorta revealed moderate atheromatosis with brown pigmentation in the adventitia.

The parenchyma of the liver was divided into islets of variable size and shape by strands of fibrous connective tissue. The parenchymal cells contained variable quantities of brown pigment. As a result, some cells were atrophic and the capillaries were dilated. In some cells, the pigment was seen as granules in the cytoplasm near the nucleus. In other cells, the nucleus was hidden by a solid mass of brown pigment. the Kupffer cells contained similar pigment deposits. The connective tissue separating the islets was fibroblastic in character and undergoing hyaline degeneration. Numerous bile capillaries were scattered throughout the tissue. The lymph node architecture was obscured by large brown pigment deposits which were seen both intra- and extra-cellularly. The spleen showed areas of passive congestion and moderate hemosiderosis. The acinar cells of the pancreas were loaded with a brown pigment, resulting in partial and total atrophy of the cellular elements in many areas. Only a few islands of Langerhans contained this brown pigment. Areas of fibrosis and atrophy were conspicuous. The stomach contained brown pigment in the gastric glands. The lining cells of the large and small intestines had brown pigment. Large brown pigment deposits were noted in the cortical portion of the adrenals. Pigmentation was also noted in the epithelium of all the tubular elements of the kidneys. The bladder and prostate contained the brown pigment deposits. All sections were stained by Turnbull's Blue Method for hemosiderin, and characteristic bright blue pigment deposits were noted in the organs indicated above.

Chemical Examination of Liver.—One hundred grams of wet liver contained 1.92 gm. of iron (normal, .1 cent). Therefore, the entire liver (2,600 gm.) contained a total of 49.92 gm. Five hundred grams of wet liver contained 18.0 mg. of copper (normal, 2.98 mg.). Thus, chemically there were enormous amounts of recoverable iron and copper from the liver alone.

Final Diagnosis.—Hemochromatosis with generalized hemosiderosis involving the liver, pancreas, thyroid, spleen, lymph glands, adrenals and kidneys; portal cirrhosis of the liver; chronic passive congestion of lungs; left ventricular dilatation and hypertrophy.

Diagnosis

Age.—The average age for a full-blown hemochromatosis to appear, as given by Sheldon[20,21] in his monumental work, was forty-five to fifty years old. His youngest patient was twenty years old. Butt and Wilder's[6] series of thirty cases at the Mayo Clinic listed fifty-two years as the average age. Chesner[9] has reported a fourteen-year-old white boy who was proven to have hemochromatosis at autopsy. Our case readily fell into the average age group.

Sex.—Ever since Sheldon published his series, it has been stated that men are predominantly involved. Twenty-nine of Wilder's cases were males. In Gillman and Gillman's[13] excellent review of the structure of liver in pellagra and pigmentary cirrhosis, women were affected in a much higher incidence than previously reported. However, the disease appeared to be more progressive and advanced in males, giving signs of atrophic cirrhosis, distended abdominal veins and ascites.

Heredity.—Lawrence[15] described a family of nine in which two brothers had proven hemochromatosis. As a result, he has suggested the possibility that hemochromatosis may be a sex-linked hereditary disease transmitted by women and affecting primarily men. Sheldon reported at least five instances in which brothers were affected by the same disease. This led him to believe that hemochromatosis was an inborn error of metabolism. This is completely denied by Gillman and Gillman. Further elaboration on this is given under "Pathogenesis."

Symptoms and Signs.—The pigmentation of the skin is described as being of a shade between the typical melanosis of Addison's disease and the grey slate-like color of argyria. Its distribution usually is general, although the exposed areas of the skin are affected most and they alone may reveal the characteristic color. In Sheldon's series, pigmentation of the skin constituted the first symptom of disease in 25.7 per cent of the cases and was found in 83.8 per cent of his series. In the Mayo series,[6] it was the first symptom noted in 40 per cent of the cases. Cantarow[8] states that up to 22 per cent of his patients showed no cutaneous pig-

mentation. Lisa and Hart[16] contend that 75 per cent of the cases will have no bronzing. The pigmentation may appear early or late. Wilder's series showed pigmentation to be present for as long as sixteen years or as short as six months before death. In our case the pigmentation had been present for ten years.

Diabetes was present in 25.7 per cent as the initial symptom and was finally present in 70 per cent of Sheldon's cases. Butt and Wilder reported an 86 per cent incidence of diabetes per laboratory means.

Hepatomegaly was present in 92 per cent of Sheldon's series and in 90 per cent of Butt and Wilder's series. In the latter instance, it was greatly enlarged in three of the cases. They noted splenomegaly in 30 per cent of their cases. Sheldon noticed this in 60 per cent of his cases.

Asthenia appears to be a frequent complaint. This, coupled with weight loss, has struck us as being prevalent in the cases reported throughout literature. This was particularly noted in the cases which were reported by Butt and Wilder, Cantarow, Darnell,[11] Beardwood and Rouse.[1] Our case was no exception. All of Gillman and Gillman's patients had severe malnutrition, and this plays an important part in their theory of the pathogenesis of hemochromatosis.

Gastric upsets frequently are the presenting symptom which send the patient to the hospital, as in our case.

Sexual hypoplasia was stressed in Sheldon's original work. This also consists of alteration of secondary sexual charactertistics: loss of hair in the axillas and on the chest and trunk, feminine distribution of pubic hair, and impotence. Darnell[11] noted a loss of hair in three of his cases, impotence in two, and atrophy of testes in one. Other series reviewed did not stress hypoplasia. It was not present in our patient.

Anemia did not appear to be of major significance in Sheldon's series. Yet Zeltmacher and Bevans[24] believe that there is more than a mere coincidence between aplastic anemia and hemochromatosis. In Chesner's case the anemia preceded the onset of all other symptoms by approximately six years. Bomford and Rhoads[4] reported three cases of aplastic anemia. Our case was not considered anemic.

Chemical Test for Hemochromatosis.— Fishback[12] has devised a method for the demonstration of iron in the skin which is of aid in the diagnosis of hemochromatosis. The technique consists simply of mixing equal parts of sterile solutions of 0.5 per cent potassium ferrocyanide and 0.01 normal HCl and injecting the solution intradermally so as to form a wheal. A positive test is present if a slight blue color becomes evident almost immediately which darkens to a deep blue within an hour. A narrow red zone appears at the periphery of the wheal and persists throughout the slow concentration of the blue test spot until it has completely faded in about two weeks. A negative test is evidenced by a white wheal with the peripheral red zone, the latter still taking about two weeks to completely fade. No harmful or injurious effects have been noted, and the test appears specific for this disease. In our patient, the skin test was positive, and we would consider it fairly reliable for suspected hemochromatosis.

If the disease is fully developed, the diagnosis of hemochromatosis is easy. In early stages it offers difficulties. When only one factor of the triad of pigmentation, diabetes mellitus and hepatic cirrhosis is present, the danger of incorrect diagnosis is greatly increased, and the disease may escape consideration unless a high degree of suspicion is entertained. Hence, a biopsy of the skin may be of some aid. Montgomery and O'Leary, as quoted by Butt and Wilder,[7] regard the finding of iron or hemosiderin in the propria of the sweat glands and about the capillaries of the upper part of the cutis to be diagnostic.

In another recent case seen at our hospital, and in which there was no skin pigmentation, diagnosis was definitely made from a liver biopsy taken through the peritoneoscope. This was the case of a seventy-five-year-old man with diabetes, hepatomegalia, ascites and no pigmentation of the skin. The Fishback skin test for hemosiderin was negative. Thus, in cases without pigmentation where hemochromatosis is suspected, the use of peritoneoscopy and liver biopsy offers a valuable diagnostic procedure. Bockus[3] mentions the use of this procedure in puzzling cases where the diagnosis cannot otherwise be established.

Pathological Physiology

The disease is characterized by the deposition of pigments, fibrotic changes and cellular degeneration in certain parenchymatous organs, with associated physiological changes producing the symptoms.

Thus the hemosiderin which loads the hepatic cells, and to a lesser degree the Kupffer cells, leads to the slow destruction of the liver cells, followed by proliferation of the unaffected cells and increase of the connective tissue. The same thing happens in the pancreas, and in this way there develops marked cirrhosis of both organs, which assume a chestnut-brown color as a result of the deposition of pigments. Due to excessive destruction of the hepatic parenchyma, the liver is unable to store glucose, and therefore it is retained in the blood and spilled into the urine. Degenerative changes in the isles of Langerhans may be an added factor in this process. Beardwood and Rouse regard this destruction as being progressive so that the diabetes produced is practically uncontrollable.

The parathyroids are also loaded with hemosiderin. According to Boyd,[5] disturbance of calcium metabolism may occur and the tissue contain an excess of calcium. There may be an osteoporosis. We have not encountered the latter in reviewing the literature.

The anterior lobe of the pituitary gland may be depressed by deposits of hemosiderin in a manner comparable to that in which the activity of the isles of Langerhans are depressed. Thus another factor is to be considered in diabetes. The problem of asthenia and sexual hypoplasia may also be attributable in part to the depressed function of the pituitary gland.

The adrenals which are inactivated by deposits of hemosiderin may be contributory factors to production of asthenia.

Striated muscle is affected to a very great extent. The heart muscle is pigmented in about 90 per cent of the cases according to Sheldon. Hence, cardiac hypertrophy and dilatation with resultant failure may be postulated as the cause of death in some of the patients with hemochromatosis.

Smooth muscle practically never contains hemosiderin. Deposits may be seen in the smooth muscle of the genital tract, small intestine and blood vessels, however.

Our case essentially presented all the above features. The factors leading to death in our case were numerous. First, as a result of fibrotic changes in the liver, portal obstruction occurred, producing ascites and dependent edema. Cause of death may have been liver insufficiency. Secondly, there may have been an element of myocardial failure due to the large hemosiderin deposits in the myocardium giving rise to ascites, edema and respiratory and cardiac distress. Thirdly, diabetic coma may have played a role.

The life expectancy varies with the severity of the lesions. In Butt and Wilder's series, some lived thirteen years and others only eight months from the time the diagnosis was made.

Pathogenesis

Sheldon in his exhaustive work on hemochromatosis states that an explanation of the disease must at least be capable of embracing the following features: (a) the deposits of hemosiderin and hemofuscin, (b) the age incidence, (c) sex incidence, (d) the cirrhosis of the liver and other organs, and (e) the increase of copper. He concluded that the most reasonable explanation was that the disease is due to an inborn error of metabolism with accumulations of small amounts of pigment over a long period of time. He did not know the exact nature of this metabolic error but believed it concerns the inner metabolism of probably all the cells in the body. It manifests itself in two ways: by the production of melanin in certain situations, as in skin and smooth muscle, and by the formation of an iron-containing compound in nearly all the tissues. He theorized that in the course of time the products of this error of metabolism gradually accumulate as the characteristic pigments, and ultimately lead to the final stage of the disease with its characteristic clinical symptoms. The process is so slow that the symptoms do not usually appear till middle life. The majority of writers on this subject concur with this opinion.

Mallory, Parker and Nye[17] produced the disease in animals by feeding copper, and their experiments were confirmed by Hall and Butt.[14] The latter produced pigment cirrhosis in rabbits, in sheep, and to a lesser extent in white rats, by feeding these animals copper acetate. This work has largely been discarded as later workers could not confirm Mallory's work.

Another interesting theory has been suggested by a group of authors who described hemochromatosis in association with aplastic anemia. They believe that, in those patients observed after they have been kept alive by a large number of blood transfusions, increased hemolysis may be the etiological factor of hemochromatosis. They suggest that the iron derived from the destruction of intrinsic and transfused blood is deposited in a cir-

rhotic liver. However, others experienced in the consequences of blood transfusions have not generally accepted such etiologic relationship.[22] Also, experimental attempts to reproduce hemochromatosis by repeated transfusions, by hemolytic agents, and by injections of hemoglobin or dialized iron have not been successful.[18,19] In Chesner's case, the patient received a total of 6 liters of blood over a nine-month period, or 2.75 gm. of iron. The amount recovered from the liver alone was 47 gm. From these calculations it is clear that the pigmentation cannot be explained by retention of transfused iron.

Gillman and Gillman, from South Africa, have written a most interesting paper on the structure of the liver in pellagra. If this work is confirmed, it would constitute a new approach to the study of hemochromatosis. On the basis of 400 liver biopsies in 120 patients with pellagra, they conclude that hemochromatosis is one of the commoner sequalae of pellagra. They saw no evidence of increased destruction of blood. They noted that the earliest evidence of the appearance of iron is preceded by visible changes in the mitochondria lying immediately distal to the nucleus. They concluded that hemofuscin and hemosiderin are derived from these pre-existing elements, mitochondria, within the liver cells. Hence, they are not derived from the blood. They thus feel that hemofuscin should be known as cytolipochrome and hemosiderin as cytosiderin. Claude[10] claimed to have demonstrated that the mitochondria contain cytochrome-oxidase, copper, ribonuclein, succinine dehydrogenase and phospholipids. If this work and Gillman's are confirmed, a new important link would be established between biochemistry and morphology. Soon it may be possible to employ morphologic indicators in tracking down some of the obscure biochemical phenomena which are known to occur in normal and diseased cells.

Gillman and Gillman claim that their theory would fit into Sheldon's criteria very satisfactorily. The deposits of hemosiderin and hemofuscin and the increase of copper, which Sheldon claimed must be accounted for, are the result of disruption of the mitochondria, according to Gillman and Gillman. The constituents of the mitochondria, namely, cytolipochrome, cytosiderin and copper, appear as disruption occurs. As to etiology, they claim it is a manisfestation of chronic malnutrition. They disagree entirely with Sheldon that this disease is the result of an inborn error of metabolism. They found through their liver biopsies that pigmentary cirrhosis is concomitant at least with some forms of malnutrition in South Africa and that the degree of pigmentation is a good indicator of the chronicity of the malnutrition. They further concluded that hemochromatosis is not an uncommon disease in Africa. This was based upon observations of 700 livers from autopsies in sudden and violent deaths of the natives.

Bean, Spies and Blankenhorn,[2] in quoting Gore, reported a case of frank pellagra associated with hemochromatosis. No attempt was made to any correlation between the two. In reviewing the literature, we were particularly interested in the nutritional states of the cases reported. Weight loss was commonly cited, but further comment or elaboration was not made. Our patient, terminally, appeared to be somewhat malnourished. Thus, through inadequate information, we are unable to discuss these cases from the nutritional point of view in line with Gillman and Gillman's recent concept.

Treatment

Wilder and others have emphasized that the most important factor in prolonging life has been the adequate control of diabetes. The first diabetic picture is usually quite mild but gradually increases in severity until at times it is quite refractory to treatment. As the disease progresses, the insulin requirement increases. Wohl and Davis[23] reported a case in which the discoloration of the skin cleared to a considerable degree after the diabetes was controlled with diet and insulin. However, this is an isolated instance. The usual course is downhill in the majority of cases.

Darnell advocated diets relatively rich in carbohydrate in order to combat hepatic insufficiency. Otherwise, the treatment is palliative.

From the trend of the recent work reviewed, a new approach as to the prevention and therapy of the puzzling disease, hemochromatosis, may be in the offing.

Summary and Conclusion

1. A typical case of hemochromatosis is presented.

2. The diagnosis is based upon clinical features, pigmentation, diabetes, and hepatomegaly, and upon the findings of pigment cirrhosis of the liver and pancreas, and siderosis in other organs.

3. A correlation is made between signs and symptoms and the pathological physiology of the disease.

4. In recent literature the association of hemochromatosis with cases of anemia has been noted. The possible relationship between blood transfusions given to these cases has been suggested as the cause of hemochromatosis. We do not believe that this question has been definitely answered.

5. It has been suggested that hemochromatosis is one of the manifestations of chronic malnutrition and that it is a common disease in Africans. The hemosiderin and hemofuscin pigments are thought to have a common origin from mitochondria, and since they arise within the liver cells, the names of "cytosiderin" and "cytolipochrome" have been suggested to replace the old and misleading terms.

6. Due to inadequate information in a review of the cases throughout the literature, we cannot substantiate the aforementioned theory. We believe that it is a most interesting concept and if confirmed would constitute a new approach to the study of hemochromatosis. Gillman and Gillman have made a definite contribution to the pathogenesis of hemochromatosis.

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Rocky Mountain Spotted Fever Appears in Michigan

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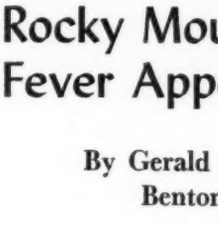

THE PROVINCIALISM which is attached to the name Rocky Mountain spotted fever is misleading, in that all but seven states* have reported the incidence of this disease. Two cases of spotted fever in Michigan occurred several years ago,† but it was conclusively proved that these patients were infected in Wyoming.[20] In 1945 a positive diagnosis was made in a patient who had never left the state. The recent death of this patient prompts a more detailed report of what probably will be considered the first endemic case of Rocky Mountain spotted fever in Michigan.[22]

The earliest accounts of Rocky Mountain spotted fever came from Idaho and Montana; and the disease has, no doubt, existed in these states since the first settlement by white men. By 1920 the disease was distributed throughout the Rocky Mountain area and the Dakotas, and in 1931 it was identified in the east.[4] Rapid recognition of its prevalence followed in the central states. As a result of this spread, spotted fever threatens to assume proportions of national significance, and it is imperative that the physicians in Michigan be alerted to have at least a working knowledge of its manifestations.

Historical accounts replete with details of the clinical, epidemiological and pathological manifestations of spotted fever are unequaled in the early writing of Wolbach,[36,37] Ricketts,[23] Spencer[29] and Parker.[21] The current articles by Wolbach,[38] Parker,[30] Topping,[25,32,34] Dyer,[7] Yeomans,[28,40] Rose,[24] Harrell[17] and Baker[5] give an accurate description of clinical and therapeutic advances in spotted fever as it exists today.

Rocky Mountain spotted fever is a rickettsial

*Connecticut, Maine, New Hampshire, Rhode Island, Vermont, Wisconsin and Mississippi.

†These two cases were reported in September, 1941, and both patients died. They were attended by Doctor Charley J. Smyth, Medical Director of the William J. Seymour Hospital, Eloise, Michigan.

disease (Dermacentroxenus rickettsi), and the rickettsiae are parasites of ticks which serve as mechanical vectors in the spread of spotted fever. The wood tick (Dermacentor andersoni), the American dog tick (D. variabilis), the lone star tick (Amblyomma americanum) in the south, and other tick vectors have been observed. Spotted fever is primarily a disease of animals, and human infections are accidental, since man plays no direct role either in perpetuating the disease or in the life cycle of the parasite vectors.[19]

Transmission

The transmission of the disease in this particular case remains a moot question. Epidemiological studies were not carried out by the state or national laboratories. It is possible that a reservoir of the disease exists in local domestic animals or in rodents. Such an assumption, however, is difficult to prove since the larger animals do not have actual symptoms during the infectious phase of the disease. In nature, rodents dead or ill with the disease have never been encountered.

Veterinarians‡ in this county report that dogs are heavily infested with ticks (Dermacentor variabilis) but recognition of spotted fever is very unlikely, in that the older dogs have inapparent infections and the younger dogs react with fever and respiratory symptoms which would probably go unnoticed and undiagnosed.

A possible approach to the epidemiological problem is suggested by Topping,[25] who studied the incidence of the infection in dogs by using the complement fixation method. Topping showed that in infected regions there was a high incidence of infections among dogs. Of interest in his study is the fact that dogs from the Chicago pound did not give a positive reaction.

Ellison[9] has made the highly significant observation that each of the species of Dermacentor known to parasitize small mamals has a distribution coincidental with a species of rabbit. The cottontail rabbit (Sylvilagus nattallia) is an important host to the immature stages of the wood tick (D. andersoni) and one of the few mammals that is host to all stages of this tick. Thus, while suspicion is cast by these observations, positive statements regarding a reservoir in rabbits cannot be made.

Aside from propagation of the disease in ticks through susceptible animals (acquired transmission), rickettsiae are also transmitted through mating of ticks, and by the female to her egg and then to her progeny (hereditary transmission). These facts further complicate epidemiological investigations.

The developmental cycle of the tick-egg, larva, nymph, and adult—extends over a two-year period. It now has been two years since the case in question occurred, and further infections have not been reported. Only time will tell if spotted fever has become endemic in Michigan but the possibility, nevertheless, remains.

From 450 to 600 cases of spotted fever are reported each year in the United States, and while the virulence varies greatly in different localities, the fatality rate for the entire nation is approximately 23 per cent. Actual figures on the morbidity of the disease are not available, but extended convalescences with or without sequellae are not uncommon. The clinical picture in spotted fever is not too difficult to recognize, and the facilities of our state laboratory make is possible to confirm clinical impressions. The present case is illustrative of the usual clinical course and morbid sequellae.

Case Report

A male patient, aged forty-seven, previously in excellent health, was first seen August 17, 1945. On the night of August 7 he noticed chilliness, slight dizziness and nausea. Later that night he vomited several times. During the next day he developed a slight cough and was seen by a physician who gave him "sulfa tablets." The patient was admitted to the St. Joseph Sanitarium on August 14 by the family physician. On admission he complained of feeling feverish and of aching throughout the entire body. He had intense vertigo, severe headache, insomnia, generalized weakness, anorexia, nonproductive cough and deafness on the left side. The symptoms enumerated became progressively worse, and during the next three days he had epistaxis, dysphagia and bladder and bowel incontinence.

On physical examination the patient was stuporous and not co-operative. His rectal temperature was 104°. The respiratory rate varied from 26 to 35 per minute. There was occasional pulse hurry but the rate seldom exceeded 100 per minute. His throat was moderately hyperemic; breath sounds were diminished throughout the chest posteriorly, and a few râles were heard at the bases. His eardrums were markedly retracted but normal landmarks were visualized. There was obvious deafness on the left. The palpebral and bulbar conjunctiva were markedly hyperemic. His pupils were contracted and fixed. The cremasteric reflexes were absent. The spleen was not palpable. Lymph glands were not palpable and the skin was normal. The remainder of the physical examination yielded no significant data.

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Concurrent urinalyses showed albumin grade II and a few coarse granular casts. The hemoglobin and red blood count were normal; and the white count varied from 11,800 to 18,200, with 92 per cent polymorphonuclear cells and 8 per cent lymphocytes. A blood culture for pyogenic organisms was negative and remained negative for eighteen consecutive days. Agglutinations for typhoid, paratyphoid and brucellosis were negative. There were no cells in the spinal fluid, and the culture of the spinal fluid yielded no growth for pyogenic organisms. The Mazzine test was negative, Routine x-ray studies showed the paranasal sinuses to be clear, and a clinical investigation of the sinuses was negative** A six-foot x-ray of the chest showed a slight increase in the density of the bronchial vascular trunks but no other significant pathologic condition. From the time of the patient's admission to the hospital, sulfadiazine and penicillin were administered in therapeutic dosages without changes in the clinical picture.

A tentative diagnosis of Rocky Mountain spotted fever was made on August 19, when the patient developed an old-rose, maculo-papular eruption on the wrists and in the regions of the ankles. The lesions were approximately 1.5 millimeters in diameter, discrete, and did not disappear on pressure. A history of tick bite could not be obtained from the relatives, and the patient was stuporous and unable to concentrate. On August 21, 1945, agglutinations for B. proteus OX-19 were found positive in 1:320 dilution. A specimen taken August 22, 1945, showed a positive reaction 1:10,240 by the Michigan State Laboratory. Simultaneously a specimen was sent to the National Health Institute at Bethesda, Maryland, and the following results were reported: Agglutinations. B. proteus OX-19 positive 1:1,280. Complement fixation tests: (1) Endemic typhus: positive 1:128; (2) Rocky Mountain spotted fever; positive 1:8,192 "or higher." With this laboratory data, and with the other clinical findings, a diagnosis of Rocky Mountain spotted fever was obviously established.

The patient's course was a very stormy one and he was on the verge of extremis for at least two weeks after the diagnosis was made. At the onset of his illness the cardiac status was satisfactory with normal heart tones, normal electrocardiogram, and an occasional extra systole. Later bradycardia developed and possible heart block. Subsequently the rate returned to normal. The spleen was palpated on August 22, 1945, but was never markedly enlarged. The rash became more generalized, and deflorescence occurred on the third day.

Therapy consisted of supportive treatment with high protetin liquids given by nasal catheter, intravenous fluids, parenteral vitamins, oxygen therapy and adrenalin in oil. The patient was given two transfusions of 500 c.c. of whole blood. He regained consciousness gradually after a period of approximately six weeks. The usual problems of emaciation, decubiti, constractures and insomnia were encountered in spite of good nursing care.

The patient was not seen again until February, 1947, just prior to his admission to the University of Michigan Hospital at Ann Arbor. At that time sequellae from Rocky Mountain spotted fever were noted, viz: personality changes, partial paraplegia with contractures, decubiti, neurotrophic changes in the right hip and a reflex neurogenic bladder.

During his stay in the hospital he was given intensive physiotherapy to correct the contractures. An indwelling catheter was inserted in an attempt to favor the decubiti. He remained disoriented and occasionally became belligerent. On the morning of March 18, 1947, after pulling out his catheter, he developed generalized twitchings, became cyanotic and died. Postmortem examination did not reveal the immediate cause of death. As residue of the spotted fever, atrophy of the cerebral cortex, patchy pigmentation of the cerebrum and bilateral necrosis of the globi pallidi were noted. Microscopically, anemic infarcts, with gitter cell and astrocytic response in the white matter and basal cell ganglia, were observed. In the spinal cord there was perivascular infiltration of lymphocytes, demyelinization and gitter cell response. In the heart multiple microscopic infarcts with hemosiderin were noted, and thrombi or emboli were seen in small coronary arteries. On section, the testes showed arrested spermatogenesis, focal orchitis and fibrosa and edema.††

Discussion

Pathologically, the distinctive gross lesions of spotted fever are those resulting from the thrombosis of blood vessels, particularly the blood vessels of the skin and genitalia. In this patient there was no necrosis of the scrotum as is so frequently observed. The spleen is usually enlarged and in this patient was palpable shortly after the rash occurred. The characteristic acute microscopic pathologic condition was obviously not demonstrated at the time of the patient's death two years later. They consist of a proliferative action of the endothelium, followed by thrombosis either mural or occluding. Perivascular nodules distinctive of typhus do not develop in spotted fever.

The clinical course and laboratory findings in this case were characteristic. The *incubation period* was not known, since a history of tick bite was not obtained. The usual incubation period in severe infection is two days, and in milder ones, from three to fourteen days. The *prodromal symptoms,* chilliness, nausea, vomiting, generalized aching and malaise, were typical. The chill usually seen at the onset was not recalled by this patient. The severe headache and intense vertigo are commonly seen as the disease progresses. Deafness from other sources was ruled out by the consulting otologist.**

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Later symptoms consisting of insomnia, generalized weakness, epistaxis and a short, dry cough were typical. In the absence of demonstrable cardiac lesions, the rapid respiratory rate of 35 was out of proportion to the physical and x-ray findings, and served as a significant clue to the diagnosis. Likewise, the striking disproportion between the slow pulse and rapid respiratory rate was noted.

Central Nervous System Symptoms.—The commonly noted restlessness and insomnia constituted a most distressing feature in the management of the patient. Protean and transient neurologic findings were present. The pupils were fixed, contracted or widely dilated. Inequality of the knee jerks was noted. The cremasteric reflexes were absent. An occasional coarse tremor and an intermittent tendency toward muscular rigidity were observed. These symptoms were equivocal in establishing a diagnosis, yet their presence added to the clinical picture.

A *rash* appeared on the twelfth day of the disease and it was this finding which first served as a clue to the diagnosis of spotted fever. In view of the fact that the patient had had sulfadiazine and penicillin, rashes from these drugs also had to be considered. Nevertheless, the centripetal distribution, and the rose-red, and later bluish-red, circumscribed and sharply demarcated papules were highly suggestive of spotted fever. Not always does the exanthem partake of this characteristic picture. Discreteness does not persist in some of the cases. Purpuric manifestations frequently become apparent, and terminal gangrene, with sloughing of mucus membrane and skin, has been reported by Baker, Wolbach and others.

Laboratory Findings.—Characteristic leukocytosis with predominance of the polymorphonuclear leukocytes was present. The persistence of leukocytosis, in spite of previous chemotherapy, offered another clue to diagnosis. The consultant, seeing later stages of the disease, has the advantage of weighing the effect of such treatment even though he does not condone indiscriminate chemotherapy without diagnosis.

The positive agglutination with B. proteus OX-19 narrowed the diagnosis to spotted fever or typhus fever. In differentiating spotted fever from endemic typhus, which also gives a positive Weil-Felix test, the complement fixation test proved to be of great value.[6,33]

The clinical course in spotted fever varies considerably from mild to severe cases. In this patient the acute phase lasted from two to three weeks. The fever remained high for the first week and then fell by lysis. The damage to the central nervous system was such that the patient remained in a state of stupor for approximately six weeks, and thereafter only gradually regained consciousness. Hearing and mental acuity were definitely impaired. Through lack of co-operation, decubiti and contractures developed in spite of excellent nursing care.

Differential Diagnosis.—As previously stated, spotted fever was not considered until the characteristic rash appeared. Prior to this it was very difficult to make a differential diagnosis, but acute sinusitis with cerebral extension was considered, also bronchiectasis with brain abscess. Typhoid fever was not difficult to rule out. Purulent meningitis and meningococcic meningitis were also considered and eliminated as a possible diagnosis. Acute trichinosis was ruled out by the blood picture.

Once the diagnosis of spotted fever was entertained, differentiation from other rickettsial diseases was not difficult. Tsutsugamushi and Q fever do not agglutinate the OX-19 strain of B. proteus. In Tsutsugamushi fever there is a distinctive eschar at the site of the mite bite. This primary lesion runs through the stages of papule, vesico-papule, excoriated papule, frank escar, and finally a small scar.[1] This evolution takes place in about four weeks. Such a lesion was not present in this patient. In Q fever there is usually an absence of the rash, and chest x-rays usually show evidence of broncho-pneumonia or pneumonitis. In typhus fever the rash is more generalized, and lacks the centripetal distribution observed here. However, clinical differentiation from typhus had to be confirmed by the complement fixation test, as was done in this case.

Treatment

The treatment in this case was entirely supportive. Intravenous fluids were given sufficient to enable the patient to put out between 700 and 1,000 c.c. of urine in twenty-four hours. There is considerable controversy as to the use of intravenous fluids, but the pathological-physiological considerations of Harrell, Venning and Wolff[17] seem to favor this type of supportive therapy. As

previously noted, whole blood was given on two occasions and, because of a generalized edema, 20 per cent glucose solution was given subsequent to the transfusions. It was believed that the edema was due to loss of protein, and that the combination of blood and glucose tended to restore normal physiology.

Treatment with specific anti-serum derived from rabbits was considered and the serum was sent for immediately after the diagnosis was made. When it finally arrived, the patient had shown some clinical improvement and it was not given. As in the case of other specific anti-serum therapy, it must be administered as early as possible in the course of the disease, and little benefit could have resulted from its use at this late stage.[35]

Para-aminobenzoic acid (PABA), now the drug of choice, was not used. Snyder, Maier and Anderson[27] were the first to show its effectiveness in experimental murine typhus in white mice. Hamilton, Plotz and Smadel[16] found that the drug inhibited the growth of epidemic and murine typhus in a developing hen's egg. Greiff, Pinkerton and Morageus[15] independently noted the same effects. Yeomans[40] and his associates in 1944 favorably modified the clinical course of twenty louseborne typhus patients as compared with forty-four untreated controls.

In June, 1945, Anigstein and Bader[2] reported the effectiveness of PABA in guinea pigs infected with spotted fever. The available literature at the time when this patient was observed contained no reference to its use in human beings. Subsequently, its use for the treatment of spotted fever has been extensively reported. The first use of PABA in clinical spotted fever was by Rose, Duane and Fichel[24] in December, 1945, four months after the occurrence of the case under discussion. Favorable results were suggested by the use of the drug in his case study. Flinn, Howard and Todd[11] reported ten cases of Rocky Mountain spotted fever treated with PABA and compared them with twenty-one controlled cases. They concluded, "most of the patients showed dramatic clinical improvement." Other isolated cases have been treated with apparent success.[18] Greely[14] has reviewed the treatment of spotted fever in children and has found that children tolerate PABA very well and that it is certainly the drug of choice.

In May, 1946, Tierney[31] reported eighteen patients with Tsutsugamushi disease treated with PABA and compared these with sixteen controls. The treated group was benefited both from the standpoint of morbidity and mortality. During the recent epidemic of Q fever in Amarillo, Texas, as well as during the outbreak of Q fever at the National Institute of Health, it is noteworthy that the drug was not used, probably because most of the diagnoses were made in retrospect. It will be interesting to observe the effect of PABA when administered early in the course of Q fever.

There is unanimity that PABA does not exert a lethal action on the rickettsiae but interferes in some way with their multiplication in tissue cells. Yeomans' most recent observations[28] should be referred to when the drug is used. In general, it can be said that early administration of the drug is necessary before the damage to the vessels is too extensive. An initial dose of 4 to 6 grams is usually given, followed by 2 to 3 grams every two hours, day and night, and blood levels are kept in the range of 30 to 60 milligrams per 100 cubic centimeters of blood. Occasional leukopenia develops, and if it persists, the use of the drug must be discontinued. The pH of the urine should be held at pH 7 or above by the use of sodium bicarbonate. Crystalinuria, when it occurs, is an indication for stopping treatment. The administration of PABA should be continued until the temperature has been normal for at least forty-eight hours lest a recrudescence of the disease be encountered.

As previously reported and as illustrated by this case, penicillin and the sulfa drugs have no specific effect on this disease.[7] The action of sulfa drugs is inhibited when used in conjunction with PABA. Penicillin is the drug of choice when secondary bacterial infection occurs and has been used successfully by Yeomans simultaneously with PABA. However, penicillin, as such, exerts no specific therapeutic action.[10]

Prophylaxis

Prophylaxis in tick-infested areas is indicated. Two or three daily inspections of the body should be sufficient in view of the fact that the invading tick crawls around from two to three hours before settling down to feed. Forceps should be used for the removal of the tick. A drop or two of kerosene, or cigarette lighter fluid, frequently facilitates its removal.

An editorial in the *Journal of the American*

Medical Association,[8] May 20, 1944, discusses the possibility that spotted fever may be prevented by injecting a minute dose of specific immune serum at the site of presumable infectious tick bites. The discussion is based on the work of Anigstein and others. A very scholarly refutation of this type of prophylaxis is presented by Armstrong and Topping[3] and should certainly be read before embarking upon its use.

Immunization of residents in Michigan is certainly not indicated unless they plan to travel in tick-infested areas. Two vaccines are available: (1) killed vaccine made from emulsion of ground-up infected wood ticks, and (2) vaccine made from rickettiae cultivated in yolk sacs of fertile hens eggs. Although immunization with either of these vaccines will not necessarily prevent the disease from developing, a marked attenuation of the symptoms will result in the event of infection.

Eradication of tick vectors may become the choice method for the control of the disease. Smith[26] found that DDT used in liquid form with pine oil as a solvent and emulsifier was effective in controlling the lone star tick and the dog tick. The thermal aerosol fog generator for large scale application of DDT has been used in New York state where spotted fever is endemic.[12,13] A considerable part of the tick population is in the egg stage, or is attached to host animals, and thus is not reached by broadcast application of DDT. It seems likely, therefore, that any effective application may have to be repeated at intervals during the season, and probably one or more succeeding seasons in order to prove effective as a control measure.

Summary

What probably will be considered the first endemic case of Rocky Mountain spotted fever in Michigan is herewith reported. It is neither wise nor practical for a clinician to remember details concerning an illness which occurs with such infrequency—what is more important is to arouse clinical suspicion because "it can happen here."

Spotted fever should be suspected in a febrile patient with leukocytosis, increased respiratory rate without objective chest findings, and protean neurologic manifestations. If in this picture the urine is negative, the spinal fluid normal, and no other localizing signs or symptoms occur, the skin should be carefully checked for a tick bite and the characteristic centripetal rash. Inquiry should be made as to the possibility of a tick bite. If this patient is seen late in his illness after penicillin and sulfa therapy has been instituted, the lack of response to therapy should serve as a further clue, even though one does not condone chemotherapy without diagnosis. If sufficient evidence exists, a specimen of clotted blood should be sent to the laboratory for agglutination with B. proteus OX-19. If these few facts are kept in mind, diagnosis ought to be made without difficulty when the disease occurs.

PABA is the drug of choice for treatment of the disease but parenteral supportive therapy, based on physiological-pathological data, should not be neglected, and penicillin rather than sulfa drugs should be used for secondary bacterial infections.

Permission for reporting this case was granted by the referring physician, Dr. Paul Hanna, St. Joseph, Michigan.

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Abdominal Surgery in Infants and Children

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DURING THE past fifteen years there has been great progress made in the surgical treatment of many abdominal lesions seen in infants and children. The progress has been the result of earlier and more accurate diagnosis, a better understanding of the fluid replacement and requirement of these young patients both preoperatively and postoperatively, refinements in surgical technique, and the use of sulfonamide derivatives, penicillin, and, of late, streptomycin. It has been said, "One can do infant's surgery on adults but not adult's surgery on infants." Judgment, the careful handling of tissues, and good hemostasis are of major surgical importance in the reduction of morbidity and mortality. The interest and co-operation of the pediatrician has contributed much to the success of the surgery of this group of patients. To be specific, without personnel capable of caring for these infants, especially the newborn, as far as supplying intravenous fluids, blood and plasma as indicated, recovery is almost impossible. Anesthesia likewise is a special problem and should be handled by one trained in this particular branch. In this brief discussion, some of the more common lesions of early infancy and childhood, as encountered in pediatric surgery, will be presented.

The Newborn

Intestinal Atresia.—In 1922, Davis and Poynter collected 392 cases of occlusive lesions of the gastrointestinal tract in the newborn, and the mortality was 100 per cent. It has been estimated that atresia occurs once in approximately 25,000 infant admissions, and the first case of duodenal atresia was described by Calder in 1733. From our experience we feel that the condition is now being recognized earlier and more frequently.

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Duodenal Atresia.—The majority of the atresias of the duodenum occur below the ampulla of Vater. Vomiting occurs usually within twenty-four to thirty-six hours after birth and is persistent after each feeding, and the vomitus is bile stained. Peristaltic waves may be seen in the upper abdomen going from left to right. There may be upper abdominal distention. Dehydration is progressive and the stools are smaller in amount. X-ray studies of the abdomen taken in the upright and inverted positions are of utmost importance in the diagnosis of atresia of the duodenum. Barium ingestion is unnecessary and dangerous for diagnostic purposes because of the possibility of aspiration and difficulty of removal before surgical intervention. Flat films will show gaseous distention of the stomach and duodenum and no gas in the remaining small bowel or colon. These lesions should be recognized early, that is, in the first two or three days of life, as after that period there is danger of impending necrosis and perforation of the distended proximal segment, with subsequent peritonitis and death. Obviously, the only chance an infant with duodenal atresia has of surviving is by surgical intervention. The mortality without operation is 100 per cent, and following operation it is still high; but through the efforts of Ladd, Miller, Horsley and others, approximately thirty successful cases have been reported. A posterior gastroenterostomy was done on one of our patients successfully. The type of sidetracking procedure will depend on the site of obstruction in the duodenum. When the atresia is above the ampulla of Vater, a posterior gastroenterostomy is preferable. If the atresia is below the ampulla, a duodenojejunostomy, either antecolic or transmescolic, is the most physiological but is not always technically possible in the occasional case. Technically, the anastomosis is not easy because the collapsed jejunum distal to the obstruction is about the size of a pencil, but it can be distended with air, which is of great help in placing the posterior row of sutures. Five 0 silk with atraumatic needles is preferable, using two rows posteriorly and a Connell suture anteriorly.

Atresia of Jejunum and Ileum.—The symptoms of atresia of the jejunum and ileum are very similar to those described for atresia of the duodenum but there is a tendency for greater abdominal distention. X-ray films of the abdomen in the upright and inverted positions will show marked dilatation of the proximal loop. In the

inverted position one will find only a small amount of air in the stomach as a separate air pocket, which is of great help in the differential diagnosis of duodenal atresia and that of the jejunum and ileum. The x-ray findings are simulated by meconium ileus. Recoveries following side-to-side anastomosis for jejunal or ileal atresia have been few because of peritonitis, but with streptomycin available, the prognosis may be improved.

Omphalocele.—This is a rare malformation in which there is abdominal viscera in the umbilical cord. The organs are covered by peritonium as a thin layer, and external to this is the amniotic membrane. These two structures are usually fused and transparent. When only small bowel is in the pouch, the opening or defect in the wall is small, making the prognosis good after surgical intervention. In the large omphalocele which contains liver and other viscera, the prognosis is much less favorable. This is a condition which demands surgical intervention as early as possible because of the risk of rupture of the thin sac and peritonitis. In other words, operative correction should be carried out within a few hours after birth. In the smaller defects, primary closure of the defect can be done in one stage after replacement of the viscera and resection of the sac. With those in whom there is a wide defect containing the liver, the primary operation consists of replacing the viscera, resecting the sac and closure of the skin. If primary repair of the wall is attempted under tension, these infants will succumb rapidly from respiratory embarrassment. The second stage of repair of the abdominal wall is postponed for a week or longer to allow the muscles and fascia to stretch so that closure can be accomplished without tension or respiratory embarrassment.

Pyloric Stenosis.—This congenital anomaly makes its presence known by the infant vomiting, which usually starts during the second to third week of life. It becomes projectile, and large peristaltic waves may be seen going from left to right in the upper abdomen after feedings. The stool is scant and dry. These patients lose weight rapidly if the stenosis is marked. A firm tumor can be palpated in the region of the pylorus in the vast majority of cases. X-ray examination after a barium meal is rarely necessary to make the diagnosis but can be used in the borderline case to determine how much retention exists. Once the diagnosis is made, these infants should be prepared for operation by having their dehydration and chemical imbalance corrected. It is not an emergency procedure so that one to two days can be used to prepare these infants adequately for operation.

The Fredet-Ramstedt procedure is done under ether anesthesia, with complete severance of the circular muscle so that the submucosa pouts well up to the margin of the defect. Care must be taken not to perforate the duodenal mucosa. If it occurs, the perforation should be closed with a fine silk suture re-enforced by a tab of omentum. If the perforation is unrecognized, a fatal peritonitis will result.

With proper pre- and postoperative preparation, meticulous surgery, good anesthesia and isolation of these infants to minimize infections, the operative mortality can be reduced to a minimum. In the last 292 infants on the surgical service, the mortality has been two deaths or 0.7 per cent. The results of the Fredet-Ramstedt procedure are as brilliant as any surgical procedure practiced at this time.

Infants and Children

Meckel's Diverticulum.—This anomaly occurs usually in the last 30 centimeters of the ileum and deserves special consideration. Meckel's diverticulum is important because of the complications which may occur in it or because of its presence. These are: (1) massive or repeated small hemorrhages, (2) inflammation and perforation, (3) the starting point of intussusception, (4) abdominal pain, and (5) intestinal obstruction. Massive hemorrhage, usually without abdominal pain, occurs most frequently in the infant two years or younger, but we have observed it in young adults up to seventeen years of age. Hemorrhage is due to either gastric or pancreatic aberrant tissue in the Meckel's diverticulum, with ulceration and erosion of blood vessels of the mucosa of the diverticulum itself or the adjacent ileum. These patients are often in hemorrhagic shock when first seen and require transfusion before considering laparotomy. Blood can be given during the operative procedure to fortify further their general condition. Laparotomy is required for all the complications of Meckel's diverticulum. The diverticulum is excised between Kocher clamps at 45° angle to the long axis of the bowel. The bowel is closed without opening the lumen by a continuous fine chromic intestinal

suture, re-enforced by interrupted silk sutures. The purse string type of closure is to be condemned because of subsequent narrowing, partial obstruction, and occasionally perforation. The mortality is dependent on the early recognition of the complications of Meckel's diverticulum and the time of illness subsequent to operative intervention. This is particularly true when Meckel's diverticulum causes intussusception, various types of obstruction and perforation. Of fifteen cases reviewed on the surgical service the following points are of interest.

Meckel's Diverticulum

I. Recoveries—twelve.
   A. Cause of Admission to Hospital
      (a) Hemorrhage—six. Massive hemorrhage—four. All had aberrant gastric tissue in Meckel's diverticulum except one with pancreatic tissue.
      (b) Pain—four.
      (c) Umbilical Discharge—two.
   B. Attached to Umbilicus—six.
   C. Management.
      (a) Excision—nine.
      (b) Resection of ileum and Meckel's diverticulum, with anastomosis—three.

II. Deaths—three boys, in 1933-1934 before sulfa and penicillin.
   A. Eight years old. Had pain for forty hours. Ruptured Meckel's diverticulum with abscess. Died twenty-four hours after operation.
   B. Nine years old. Had pain for forty hours. Gangerous small bowel, with band. Meckel's diverticulum to umbilicus.
   C. Eleven years old. Bowel resertion and anastomosis. Died sixteenth day after operation. Intestinal obstruction.

Intussusception.—The classical symptoms are those of sudden onset of crampy abdominal pains in a previously well infant. As the obstruction progresses, the interval between pains becomes shorter and may be followed by nausea and vomiting. The first bowel movement may be normal but the subsequent one may have blood and stool mixed. The passing of a bloody stool follows, usually bright red or mixed with dark blood. Physical examination will reveal a mass in the majority of patients eight to ten hours after the onset of symptoms. The mass is described as soft, sausage-shaped, and there is usually a flaccid abdomen. When the symptoms have been present more than ten to twelve hours, fever of 100° to 101° is usual. The above group of symptoms and findings are found in the ileo-colic type, which constitutes about 75 per cent of the cases. In the ileo-ileo type no mass may be palpated, but the signs of intestinal obstruction are present and a scout film of the abdomen is helpful in the diagnosis.

An early and accurate diagnosis is of paramount importance so that surgical reduction of the intussusception can be carried out at the earliest possible moment. Patients who enter the hospital with a temperature above 101° with intussusception will show signs of toxemia, and the prognosis will be more guarded. The intussusceptions that are operated upon within twelve to eighteen hours have an excellent prognosis because they can be reduced before any bowel damage has occurred. In patients coming to operation with a high fever and symptoms of obstruction for more than twenty-four hours, the mortality is correspondingly higher. It is well to remember about 80 per cent of the cases of this lesion are seen in infants between the ages of three and eight months, and males predominate; the mortality in any given series is in direct proportion to the time from the onset of symptoms to the time of surgical intervention. Mortality in former years ranged about 50 per cent. This was because many of these patients arrived at the hospital with considerable bowel damage, many having gangrenous bowel and peritonitis. During the past few years, with earlier diagnosis and early operation, the mortality has been less than 10 per cent. In older children, when intussusception is present, it is more likely to be of the colic variety; and if there is any question about the diagnosis, a barium enema, given carefully, is indicated to establish the diagnosis. It is also important that a few hours be spent preoperatively in restoring the chemical balance in those patients who are toxic. The giving of blood during operation will help to minimize the shock that may be attendant with the surgical procedure. In those patients entering the hospital with intussusception of long duration, and which is irreducible, the prognosis is grave. Either a Mikulicz procedure or an anastomosis with excision of the mass can be done. The survivals of patients in this desperate situation are still very few, but more successful cases are being reported.

Appendicitis.—The symptoms of acute appendicitis in the child are quite typical in the majority of patients. It is to be remembered that appendi-

citis can occur in the young child under three years of age, and that perforation may occur early, that is, in six to ten hours after the onset of symptoms. The young child's appendiceal wall is thin and practically devoid of a muscular layer, so that when obstruction occurs in the lumen, followed by distention, perforation or necrosis occurs. When the history strongly suggests acute appendicitis, and the abdominal findings of tenderness and muscle guarding are absent, rectal examination is indicated to rule out a pelvic appendicitis. The morbidity and mortality associated with appendicitis in children have been reduced by the chemotherapeutic agents, in conjunction with sound surgical procedures and judgment in the management of the peritonitis group, especially. In 1942, a review of 1,653 patients with appendicitis, over a fifteen-year period (1927-1941) on the surgical service at the Children's Hospital of Michigan, listed an overall mortality of 4.2 per cent. In this group there were 94 patients with diffuse peritonitis, who had a mortality rate of 64.9 per cent. Thirty-five of these patients died without having any operation as many were practically moribund on admission. Since 1942 an additional 435 infants and children with appendicitis have been operated upon, and 104 have had peritonitis. In this entire group of 435 patients there has been no death. These patients have had the benefit of surgery, sulfa compounds and penicillin, adequate amounts of blood, plasma, glucose and salt solutions to maintain proper mineral and electrolytic balance, and intestinal intubation to minimize and control distention. In the reduction of morbidity and mortality of appendicitis, early diagnosis and operation is of prime fundamental importance.

Hernia.—Diaphragmatic hernia should be suspected in all newborns who have dyspnea, cyanosis or vomiting. X-ray examination will confirm the diagnosis, and surgical intervention is indicated in the first few days of life in all except the small esophageal hernia. These infants tolerate surgery well, and the abdominal approach is advisable.

Umbilical hernias respond to strapping in the great majority of infants during the first year of life; after this period, those who do not respond to adhesive strapping will require surgical repair. Incarceration in this type of hernia rarely occurs under a year, but when it does, surgical intervention is indicated.

Inguinal hernias are frequent, and incarceration under the age of two is not infrequent. Since 1941, thirty-eight infants under two years of age have been operated upon for incarcerated hernia, and ninety-seven operated upon as elective procedures because of pain, repeated occurrences of mild incarcerations, or large hernia which interfered with the child's normal activities. There has been no operative mortality in this group. It has been a policy in past years to postpone elective surgery for hernia in infants until after the age of two years or more. It is our feeling now that if the indications are present for surgical correction, age is not such an important factor as formerly believed. The repair used in children and infants is that of the Ferguson operation with non-transplantation of the cord. The congenital indirect sac should be carefully separated from the cord structure, so as not to injure the small blood vessels, vas deferens and nerves. Complete surgical excision of the sac following high ligation is followed by excellent results. Recurrence is a rarity.

Summary and Conclusions

1. A brief discussion of some of the lesions of the abdomen in infants and children requiring surgical intervention has been presented.

2. The reduction of morbidity and mortality in abdominal surgery of infants and children has been possible because of (a) better understanding and evaluation of the fluid and chemical requirements both preoperatively and postoperatively, (b) earlier and more accurate diagnosis, (c) improved surgical technique and anesthesia, and (d) chemotherapy.

3. The active co-operation of the pediatrician and surgeon in these problems is necessary to obtain the most satisfactory results.

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The Physician and the Child

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THE PHYSICIAN'S interest in the child is a comparatively recent development in medical practice. In 1880 a special Section of Pediatrics was organized in the American Medical Association, and eight years later the American Pediatric Society was founded. While an increasing number of physicians had begun to devote themselves to children's medical problems prior to that time, these two organizations gave impetus to this interest and placed the newly developing specialty on a sound basis. In general, the three most pressing problems were those of (1) physical growth and development, (2) the infectious diseases, and (3) the nutritional disorders.

Looking back today, we are all heartened by the progress which has been made. Infant feeding and nutrition are on a sounder basis, markedly decreasing the nutritional disorders of childhood. Many of the infectious diseases have been reduced both in number and severity. Improved newborn care has reduced infant mortality substantially; the advances in physiological knowledge have made possible supportive therapy as needed, and recently, the use of the sulfa drugs, penicillin and other antibiotic drugs has contributed much to the improvement of the physical health of our children.

Encouraging as this progress is, there are many problems yet to be solved—rheumatic heart disease, the virus diseases, ulcerative colitis, enuresis, and encopresis, to name only a few. In addition, an increasing number of children come to us with physical complaints not substantiated by organic findings, or with vague complaints which are not related to physical illness. The so-called "behavior problem" child is always with us. It is these latter two groups that I should like to consider in this discussion. Almost every one of us, regardless of our specialty interest, has encountered such children in our practice. The management of these difficult cases taxes our skill and patience to the utmost. There is scarcely a one of us who, after giving his best, has not in final desperation suggested that "maybe he will grow out of it." However, there is accumulating evidence to show that too many of these children do not grow out of it, but become progressively more difficult problems to themselves, their families, society in general, and too often to the physician himself. The vast army of psychoneurotic adults in our country is ample testimony to this statement.

In illustration, permit me to review briefly a few typical cases which have come to our attention.

Case Reports

Case 1.—M. J., a six-year-old girl, the youngest of a family of four children, the others being boys, suddenly became blind during a mild attack of the measles. The blindness persisted following recovery from the measles. The family physician and several consultants failed to establish a diagnosis or help the patient therapeutically. One consultant made a tentative diagnosis of retro-bulbar neuritis—"just to make sure."

One month following recovery from the measles the patient was referred to our hospital. Our physical studies were essentially negative. However, we noted some important facts previously overlooked. Our patient bore the brunt of an intense sibling rivalry in the home. The parents, active in an organization for the blind, were out of the home many evenings, leaving the girl in the care of her brothers. Through this organization our patient had met and come to admire greatly a blind woman.

With these facts established, it was possible finally to help our patient and the family understand the problem. Quite unconsciously, she had resorted to blindness to escape the difficulties with her siblings and gain for herself a place of security in the family. Within a month she recovered fully, and has remained free from symptoms for over three years. The final diagnosis in this case was conversion hysteria.

Case 2.—L., a fifteen-year-old boy, the oldest of a family of four children, had had terrific headaches and vague abdominal complaints for several years. All physical studies, including our own, were negative. However, in the course of our study, we found he suffered from a specific reading disability which resulted in an overwhelming fear of failure in school. Interpretation of his basic difficulty to him and his family, together with some adjustments in the school, resulted in marked relief from symptoms.

Case 3.—T., a fifteen-month-old girl, the older of dissimilar twins, weighed no more than she did at six months of age. Repeated comprehensive physical and laboratory studies revealed nothing suggestive as to etiology. Investigation brought out the fact that the children were

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born during the father's period of military service. The mother, anxious and high strung because of the father's absence from home and the tensions growing out of living with relatives, found herself unable to continue nursing both children. Upon a physician's advice, the patient was removed from her mother's breast and the twin brother kept on it. The feeding problem began concomitantly with removal from the breast.

Several interviews with the parents helped them to understand and manage the patient more effectively, and she showed considerable improvement. However, she continues to be very hostile toward her twin brother.

Case 4.—J., a nine-year-old girl, had suffered from bronchial asthma for five years in spite of active treatment. Nothing was effective. After a prolonged period of intensive work with the family, it was learned that her difficulty followed the witnessing of the death of a younger sister who had choked to death in the mother's arms during a severe paroxysm when ill with pertussis. From this point on, the mother became extremely oversolicitous of our patient.

The patient improved considerably following clarification of her psychological troubles and restoration of a more normal interpersonal relationship with her mother, but five long years had elapsed.

Case 5.—H., a nine-year-old boy, was referred to our hospital because he was failing in school, had begun to steal (always from his own mother), was becoming increasingly difficult to manage at home, and occasionally would remain away from home for several days. He "liked to stay over to the neighbors."

Our physical studies were negative. His psychological examination indicated he was of good intellectual capacity and could manage his school assignments satisfactorily.

The basis of the problem finally was reached when the mother candidly acknowledged she "had never wanted him." The family were farmers and had purchased a tractor at about the time the mother became pregnant with our patient. Having the baby was an additional expense just at the time that the tractor had to be paid for.

Our efforts to modify the mother's attitude toward this lad were not fruitful. However, his behavior improved following a series of interviews with him, during which he had a chance to "get a lot of things off my chest." With our support, the father was able to deal more understandingly with the boy and helped him considerably.

In each of the above illustrations, the chief source of difficulty was a severe emotional problem. When the problem was recognized and simple steps were taken to help both parents and child deal more effectively with it, improvement followed.

The number of children suffering from such problems is greater than has been appreciated. No accurate figures are available as far as is known. However, it has been estimated that nearly one-third of all children in our country under five years of age, or approximately five million, have problems of eating, sleeping, elimination, temper tantrums or nervousness. This may be the reservoir from which later problems arise. It is estimated that over one million children have speech difficulties such as stammering. There are many theories regarding the etiology of this disagreeable handicap; one now gaining favor is that a severe emotional problem is involved. Approximately 10 to 20 per cent of our school children cannot read, due either to poor teaching techniques or to a specific learning disability. Another problem is limited intellectual capacity, which makes it difficult for some children to meet the competition of others satisfactorily. We have no adequate figures on juvenile delinquency, but we know the so-called "neurotic delinquent" is frequently encountered. Some years ago it was estimated that of the 2,020,000 children in the public schools of New York City, 95,000 could expect to spend part of their lives in a mental hospital. In a recent issue of one of the national weekly news magazines, it was reported that each year thirty or more of our children under ten years of age commit suicide, a problem not generally recognized.

Anxiety

One of the most important emotional states encountered is that of anxiety. Simply defined, anxiety is an unpleasant-feeling state which usually develops whenever the child is not sure of his relationships to those upon whom he is dependent. Anything real or imaginary which threatens the infant's or child's sense of belonging completely and intimately to his mother initially, and later to his parents, will produce it. While it is closely related to fear, it differs from fear in that there is no apparent threat from external circumstances.

It is difficult to conceive of anyone, young or old, not being subjected to periods of emotional stress and strain—at least as our present world is organized. However, like the adult, the child is capable of handling stresses and strains if they are not too severe or too long sustained. It is only when emotional tension is prolonged beyond the limits of tolerance that it becomes overwhelming.

When it reaches these proportions, the child, unable to handle his tensions satisfactorily, may seek

relief in one of several ways. He may become a "problem child," hard to manage because of temper tantrums or rages. He may become overactive, a hyperkinetic child. He may become destructive and display periodic outbursts of negativism. He may withdraw within himself to become shy and inhibited. He may become so withdrawn as to create the impression of extreme mental retardation. He may exaggerate his symptoms when ill. Excessive anxiety disturbs the equilibrium of one or more of the body systems. Muscle tension may be increased. Respiration and heart beat may be accelerated. The activity of the gastrointestinal and genitourinary system may be altered—to mention only a few. He may even develop a definite neurosis, such as hysteria or an anxiety state.

The sources of tension producing anxiety in children are many and varied. In the infant, anxiety may be related directly to the nervousness and anxiety of the mother, which is communicated to the child by means little understood. It may be due to unreasonable and excessive demands made upon him, such as too rigid adherence to feeding schedules without allowing for individual variations in need for food. Bowel and bladder training, when begun too early and carried on too persistently before the child is ready to assume such responsibility, may cause trouble. An attitude of oversolicitude and protectiveness, which does not permit him to exercise his own initiative when he is ready for it, may produce anxiety.

In the older child, parental friction, whatever its source, is an important factor. Real or imagined lack of parental affection destroys the child's sense of belonging and may be another cause of tension. This often follows the birth of another child into the family, particularly if the new arrival comes unexpectedly. The feeling of not being wanted because of parental preference for other siblings is often encountered. The inability to compete successfully with contemporaries in the neighborhood or school may threaten the child's security. Unusual circumstances, such as an illness or death of a loved one or being involved in forbidden activities, may produce excessive anxiety. Many other sources could be mentioned.

Emotional Factors

It is often difficult to evaluate the relative importance of a disturbed emotional state in a patient situation. However, if we are willing to accept the fact that emotional factors must be considered along with others, and if we are willing to inquire about them, we will often find helpful clues. Our own attitude toward the total situation should be one of interest, willingness to try to understand, and willingness to *listen*. Such an attitude invites co-operation and promotes mutual confidence so essential in the process. A critical, blaming or punitive attitude invites failure, for it destroys the patient's and parents' ability to share their thoughts and feelings easily and fully with us.

An understanding attitude on the part of the physician often results in the initial complaint being expanded into many, and sources of tension usually manifest themselves. Careful inquiry not only into the historical account of the problem but also into the feeling states accompanying the various phases of its development, is helpful. In this sense the pregnancy, labor, birth, health and developmental history of the child, his eating, sleeping and elimination habits, the home circumstances, relationships and attitudes—important in themselves—take on added significance as they gradually reveal the total setting in which the child lives. An analysis of the child's ability to compete successfully with others, particularly after he has entered school, together with his play interests and the character of his play, is another guide.

The absence of any conclusive physical findings helps to substantiate the importance of emotional tension. In no instance should a thorough physical examination be omitted. In an extremely difficult situation, a few days' observation in a hospital away from the family is recommended.

Following such a procedure, it is possible to evaluate the relative importance of the emotional and physical factors in any case and to give proper emphasis to each in management. It may be that time must be spent helping parents toward a better understanding of the child's total needs. Certainly this is true in the case of younger children. It may be that the child himself will, with encouragement, gradually tell us his side of the story and profit by the realization that here is someone who understands. We may need to help the family and the school adjust the school program to meet the child's needs.

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Thirty Years of Progress in Obstetrics

By Clifford B. Lull, M.D.
Philadelphia, Pennsylvania

WHEN ONE speaks of progress in this rapidly changing world, he thinks only of the improvements which have taken place and does not take into consideration the many setbacks which have occurred. Fortunately, two World Wars, the threat of socialized medicine, and the many economic problems which have threatened our entire social structure, have not deterred the practicing physician from his endeavor to alleviate the physical ills of our population. Our course has been set and we have not, even on the darkest night or in the most turbulent waters, deviated from it.

I have been asked many times why I chose the field of obstetrics as my life's work. I have never answered this question publicly before, but in this communicaton I am going to admit that thirty years ago, after having served a rotating internship of thirty months, having been exposed to all of the various branches and specialties of medicine, being somewhat immature and at that time having altruistic ideas, I decided that obstetrics as a specialty occupied the lowest rung of the ladder. With prenatal care in its infancy and maternal mortality accepted as part of the price of motherhood, the poor lowly obstetrician was frowned upon by that almighty personage the general surgeon, accepted as a necessary evil by most hospital administrators, and pushed into unwanted space with the admonition that women had always had babies and would probably continue to have them.

I well remember the many sage prognostications of my venerable chief, Dr. Edward P. Davis, with regard to obstetric practice. One was to the effect that, to be truly an obstetric specialist, one would have to be a trained abdominal surgeon, because gynecology, instead of being a specialty of its own or the bread and butter of the general surgeon, was in reality the handmaiden of obstetrics. Fortunately, I have lived to see this prognostication come true. Although there are many competent obstetricians who have not been trained in gynecologic surgery, a vast proportion of specialists have been, and as a result are better able to handle complicated obstetrics. During this same period of time, the general practitioner, who after all remains the keystone of obstetric practice, has learned not to enter where angels fear to tread, and does not hesitate to call in a competent consultant when available. One of the foremost questions in my mind over this period of years has been, why should a general practitioner attempt a difficult version or forceps delivery when he wouldn't think of taking out an appendix, the former being in many instances a much more formidable proceeding, maybe not resulting in mortality but often resulting in permanent crippling invaldism. If one is to practice good obstetrics, it is necessary to bring the patient to the point of labor in the best possible physical condition, to obtain for her a living child, and to return her to society in as good physical condition as she was before becoming pregnant. This should be the goal of every doctor who undertakes the management of the parturient woman.

The picture of obstetric practice thirty years ago was slightly different than it is today. Thirty-two years ago, when I began my hospital residency, Europe was in the throes of that great conflagration known as World War I, the Democrats were promising to keep us out of war, a five-cent cigar was still obtainable, and the price of an evening's entertainment was within the reach of the pocketbook of even the unpaid intern. When a woman became pregnant, she usually registered at a clinic at about the seventh month of her pregnancy. If she went to a private physician, she told him when she expected her baby, was advised to call him when in active labor, and if she submitted a specimen of her urine, it was usually given that well known "sun and sink" test (holding it up to the sun and dumping it in the sink). Our maternity ward always had two or three critically ill women who, because of an unsuccessful attempt at delivery outside, were subjected to the Porro operation, in which the stump of the uterus was sutured outside the abdominal incision; and one could always demonstrate a woman with "fits."

Common custom ordained that all patients delivered by forceps or version, and all cases of twin

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pregnancy or polyhydramnios, should have the placenta removed manually, following which an intra-uterine douche of one-half per cent lysol was given, the uterus packed with iodoform gauze and the vagina packed with bichloride gauze. The operation of cesarean section was a dramatic affair; all were classical unless the uterus was removed, during which time a stop-watch was held on the operator and the operation performed under deep ether anesthesia, with resultant laborious efforts to make the baby breathe. My chief's explanation of the baby's difficulty to breathe was that the baby hesistated because he was put off at the wrong station in the middle of the night. The uterus was removed from the abdomen before the child was extracted, necessitating an incision from the symphysis pubis almost to the ensiform. The umbilicus was removed because "they weren't wearing them then." All patients received an intravenous administration of saline and a thorough gastric lavage under anesthesia, providing the tube didn't get into the air passage by mistake.

Many vaginal examinations were made, although with care, during the course of labor. Care was taken never to rupture the membranes because this would result in a "dry labor." Vaginal delivery was, if possible, always spontaneous, with the patient on her side and a sand bag separating her legs. She was relieved of her pain by a not too generous whiff of chloroform or ether. Episiotomy was not done and repair of lacerations was accomplished by through and through sutures of silkworm gut, sometimes with anesthesia but mostly with analgesia. The use of morphine during late labor resulted in many narcotized babies. The lying-in period was fourteen to twenty-one days, during which time the patient was kept absolutely quiet and in semi-fowler position. If the uterus was packed, another intra-uterine douche was given at the end of forty-eight hours when the packing was removed.

Oxytocic drugs consisted of one teaspoonful of fluid extract of ergot, repeated occasionally. Manual dilatation of the cervix, the use of the Voorhees bag, and Dührssen's incision were common practice.

Toxemia of pregnancy was attacked from an elimination standpoint, so that purging, bloodletting, sweating, and the use of leeches supposedly got rid of the poison. Cesarean section was performed almost routinely on the eclamptic before the toxemia was treated.

Puerperal sepsis was on the way out, but the occurrence of postpartum hemorrhage, thrombophlebitis, embolism, and the breaking down of perineii, was an everyday incident.

This is only part of the picture of obstetric practice as I recall it thirty years ago. Time does not permit me to elaborate on this, and I shall proceed to discuss a few of the improvements that have occurred during my active professional career.

Prenatal Care

Education of the laity as to what constitutes good prenatal care has resulted in women going to their doctor or clinic early in pregnancy and following the advice received. Education of the doctor and the improved methods of teaching obstetrics have resulted in the patient's being examined more thoroughly and receiving more detailed instruction. This combination has reduced maternal mortality and has saved many babies. Most women know that if the patient doesn't have a complete physical examination, Wassermann test, blood count, Rh factor determination, urine analysis, careful check on weight and blood pressure, detailed instruction as to diet, rest, exercise, sexual relations, and isn't sent to her dentist, she is not receiving adequate prenatal care. This should also include pelvimetry and at least one careful vaginal examination.

We believe today that nutrition in pregnancy is one of the most important factors in the prevention of toxemia, anemia, prematurity, and many of the common discomforts of pregnancy. Before the outbreak of World War II, we studied 2,000 patients. Of this number, 593 were studied in statistical detail and compared to a comparable group of 772 control patients. The control group was composed of ward patients taken from 1939 and consisted of all white patients having viable births. The research group of 593 was established on the same basis. Our statistical findings were as follows:

	Control Group	*Research Group*
Total baby deaths	18 (2.33%)	11 (1.85%)
Stillbirths	9 (1.16%)	5 (0.84%)
Neonatal Deaths	9 (1.16%)	6 (1.01%)
Prematurity (5½ pounds or less)	54 (7.07%)	24 (4.16%)

The Control Group represents a 70 per cent increase in incidence over the Research Group,

or a 41.2 per cent decrease in incidence in the Research Group.

As a result of this study we are now starting a five-year period of research along the same lines but with a much more thorough investigation, particularly from the laboratory standpoint. During this research period, we hope to gather sufficient valuable information to place the subject of nutrition in pregnancy on a permanent firm foundation. At the present time we are using a diet consisting of 120 to 125 grams of protein, 85 to 90 grams of fat, and approximately 275 grams of carbohydrate, or sufficient to make approximately 2,300 calories. This diet also contains the minimum daily requirement of the known vitamins and minerals. This diet was established on a pregravid weight of 110 to 120 pounds and is adjusted to the individual patient according to her pregravid weight. We are also very much interested in preoperative and postoperative diet and the maintenance of fluid balance during labor.

The diagnosis of "false pregnancy" is seldom made since the introduction of the hormonal tests of pregnancy.

X-ray is of great help in confirming the clinical diagnosis of pregnancy but is of more value in the study of the relationship of the size of the baby to the maternal pelvis. It also is an aid in the diagnosing of multiple pregnancy, intra-uterine fetal death, the presence of monstrosities, and visualization of the placenta. Thus the laboratory and x-ray departments have become an integral part of obstetric practice.

The incidence of toxemia of pregnancy has decreased with the institution of better prenatal care and its early recognition and treatment.

The prevention of abortion has had and is still having very thorough investigation. The use of hormones, vitamin E, and good prenatal care has brought happiness to many women by giving them a living child, even after repeated miscarriages. The management of threatened and incomplete abortion is still being argued between the radicals and conservatives. We lean to conservatism and do not enter the uterine cavity without a definite indication, which is usually bleeding.

Much is still to be learned about the Rh factor problem. In suspicious erythroblastotics, immediate transfusion of Rh-negative blood to babies born of Rh-negative mothers, has saved many of these babies. However, until such time as we have the answer as to what to do for the mother to prevent this condition occurring in the baby, we shall have to go on wondering about the outcome. I do not favor cesarean section prematurely, as in the few instances when I was swayed to do this, I have had a premature baby on my hands who in all likelihood would have been normal if carried to full term.

The early recognition of placenta previa and premature separation, the more frequent use of cesarean section, and transfusions have decreased the mortality for both mother and baby. We do not believe in employing cesarean section as a routine, but an analysis of our results makes us feel that it should be used more frequently. Our last survey at the Philadelphia Lying-in Hospital covered the period from 1934 to 1945 and was made by my associate, Dr. Robert Kimbrough. The findings were as follows: Premature separation of the normally implanted placenta and placenta previa account for approximately 6 per cent of all maternal deaths throughout the country attributable to childbirth. In 28,288 deliveries in our clinic, there were 113 cases of abruptio, an incidence of one in 250. Toxemia of late pregnancy was the etiological factor in 48 per cent of the cases; 52 per cent were unknown. There were sixty-six cesarean sections (58 per cent) and forty-seven vaginal deliveries (42 per cent). There were two maternal deaths, an incidence of 1.8 per cent; one occurred following cesarean section and one following vaginal delivery. The latter death was attributed to acute yellow atrophy. In the 113 cases of abruptio, there were thirty-nine fetal deaths (nineteen stillborn and twenty neonatal), an incidence of 35 per cent. Nineteen of the thirty-nine dead babies weighed less than 4 pounds, giving a corrected fetal mortality of 21 per cent. In the same series of deliveries there were ninety-two cases of placenta previa, an incidence of one in 307. The marginal type, in which the placenta covered only a portion of the internal os, was most frequently encountered; next in order of frequency were lateral and central implantations. Vaginal delivery was performed in 19 per cent and cesarean section in 81 per cent. There were two maternal deaths or 2.2 per cent. There were no maternal deaths following vaginal delivery but unfortunately a relatively small number of patients were found amenable to simple procedures. In the ninety-two cases of placenta previa there were twenty-four fetal deaths, an in-

cidence of 26 per cent. Nine of the twenty-four dead babies weighed less than four pounds, giving a corrected fetal mortality of 18.5 per cent.

Management of Labor

Great strides forward have been made in the management of the patient in labor. The maintenance of fluid balance, more rigid observation, and the relief of pain have decreased the fear of this ordeal. We usually make one careful sterile vaginal examination on admission to the labor room and then follow the course of labor by rectal palpation. There is no such thing as a routine method of pain relief. Every patient must be individualized and one of the many methods instituted. The relief of pain begins at the first prenatal visit, and although Grantley Read has proved the great benefit of the relief of fear, I feel it should be used as an adjunct to other proper methods. More and more we are resorting to some form of regional block and less to inhalation anesthesia. We use very little morphine, and, if sedation is decided upon, we use a combination of amytal, seconal, and scopolamine, terminating the delivery under nitrous oxide and oxygen. We are firm believers in prophylactic outlet forceps with episiotomy, and never allow the head to remain on the pelvic floor more than one hour with no progress. Ergotrate and pitocin are given after delivery. The ergotrate is routinely given intramuscularly but if immediate contraction of the uterus does not occur, a second ampule is given intravenously. Pitocin is a wonderful drug, but we do not employ it very frequently to induce labor, much preferring castor oil and an enema. If this is not successful, we then rupture the membranes.

Cesarean Section

With the development of the low flap and extra-peritoneal operation, the improvement in cesarean section technique now allows us to give the patient a test of labor or even to operate upon her when the uterus is potentially infected, without sacrificing the uterus.

Choice of anesthesia is just as important as the selection of the type of operation to be done. We have now performed 786 cesarean sections of various types under fractional spinal anesthesia without a maternal death. After seeing the relaxation of the abdominal wall, the absence of need for resuscitation of the baby, the reduced blood loss with good uterine contraction, the speedy and easy convalescence of the mother, and her appreciation of hearing her baby's first cry, I am convinced that the use of general anesthesia will be replaced by some form of regional block.

Pyelitis, infected abortion, mastitis, and other infections usually respond to the sulfonamides or penicillin.

In many instances early ambulation has prevented thrombophlebitis. It also allows the patient to regain her strength more rapidly and gives her early self-assurance.

Conclusion

As I compare obstetric practice today with that of thirty years ago, I cannot help but feel that tremendous improvement has occurred. Utopia has not been reached. After all, we are just ordinary human beings trying to help Nature improve and preserve mankind, struggling at times under great odds but always looking for any avenue which might open the way to further improvement. This is as it should be. We would not be keeping faith with our fellow man, nor would we be keeping the trust imposed on us as physicians, if we did not seek improvement.

In conclusion, I should like to enumerate some of the problems that need further thought and study: nutrition in pregnancy, the cause and treatment of toxemia, the Rh factor; analgesia and anesthesia, the prevention of prematurity and abortion, the prevention of monstrosities, and the management of pregnancy complicated by diabetes, cardiac disease, and renal disease.

Finally, there is no specialty in medicine where there can be a routine procedure for the management of its complications. There is no other specialty where individualization is of such paramount importance. Always remember, to be a good obstetrician you must first be a good doctor.

MSMS

EASTER SEALS

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Each doctor of medicine can serve his community and his profession by buying and encouraging the sale of Easter Seals. It's a grand opportunity to give, and know that your gift means a chance for a crippled child to be restored to health.

You are invited to write the Michigan Society for Crippled Children and Disabled Adults, Inc., 449 W. Ferry Avenue, Detroit 2, for detailed information on any of its many activities.

Detroit Physiological Society

Session of November 20, 1947

The Effect of Certain Nitrogenous Compounds on the Production of Polycythemia by Cobalt. Mary C. Bucciero and James M. Orten, Department of Physiological Chemistry, Wayne University College of Medicine.

A study has been made to obtain information on the mode of action of cobalt in stimulating hemopoiesis. Groups of rats were fed an adequate synthetic basal diet supplemented with small amounts of cobalt and with cobalt in combination with choline, methionine, histidine or cysteine. A group of unsupplemented animals served as controls. Body weight and food consumption were followed weekly and hemoglobin determinations made biweekly.

The rats administered cobalt grew at a decreased rate but consumed more food per 100 grams body weight than did the control animals. The average hemoglobin value reached a level of 20 grams per 100 ml. of blood.

The administration of choline with cobalt resulted in a retardation of growth and the development of a polycythemia, both to the same extent as in rats given cobalt alone. All the values obtained on these two rats paralleled very closely the results obtained in animals administered cobalt alone.

In rats fed methionine with cobalt there was a definite beneficial effect on body growth but no alteration in the rate or extent of hemoglobin formation as compared with animals given cobalt alone.

The animals which received histidine in addition to cobalt showed evidence of some effect on the inhibition of growth produced by cobalt, but the reduction in the hemoglobin value to an average of 18.2 was more significant.

The most striking results were obtained in animals receiving cysteine with cobalt. In this group, there was a significant increase in body weight as compared with the animals administered cobalt alone. There was also a negation of the polycythemia as indicated by an average terminal hemoglobin value of 17.3 grams per 100 ml. of blood. This effect of cysteine is highly significant as borne out by a statistical analysis of the data.

The foregoing observations suggest that the factors governing the rate of growth and those involved in increasing the level of hemoglobin under the present experimental conditions are probably not the same.

Two additional groups of rats were studied in order to determine whether the mode of action involved in the inhibition of the polycythemia by cysteine and histidine was one of decreasing the absorption of cobalt from the gastrointestinal tract. Control rats injected with cobalt sulfate developed a polycythemia whereas rats injected with the cobalt-cysteine complex in an equivalent amount did not show any increase in the hemoglobin level above that of normal rats. These data thus indicate that a possible impairment of cobalt absorption from the gastrointestinal tract by cysteine is not the critical factor.

Two explanations of the effect of cysteine and histidine in preventing the production of polycythemia by cobalt appear possible. One is that these two substances by forming complex compounds with cobalt may increase its excretion and thus decrease its ability to produce a polycythemia. The other explanation, the more likely in our opinion, is that the administered cysteine and histidine combine with cobalt in the tissues thus preventing its subsequent "blocking" of sulfhydryl and perhaps other groups active in cellular respiration and thus, in turn, preventing the development of a compensatory polycythemia.

An Oxyhemograph: A Continuous Method for Measuring the Percentage of Oxygen Saturation of the Blood. F. W. Hartman, V. G. Behrmann, Henry Ford Hospital, and F. W. Chapman, General Motors Research Laboratories.

The demand for a reliable procedure for continuously recording the oxygen saturation of the blood has led to the publication of several photoelectric methods (Nicolai, 1931; Kramer, 1934, 1935; Matthes, 1934, 1935; Hartman & McClure, 1940; Squire, 1940; Goldie, 1942; and Millikan, 1942). The merits of these techniques are discussed and the improvements, incorporated in the oxyhemograph, are described. The blood oxygen saturation is measured by means of a bichromatic

photocell, secured to the helix of the ear, a unique feature of the method being the amplification by means of a "contact modulated" D. C. amplifier, which is both stable and sensitive and allows a permanent continuous record on a rugged D. C. milliameter.

Calibration data are shown which correlate actual arterial blood oxygen saturation values with the oxyhemograph readings. The arterial blood was analyzed in duplicate for oxygen content and oxygen capacity using Van Slyke's manometric method. The data obtained on twenty clinical cases show that the chemical and instrumental data are usually within ± 2½ per cent. The calibration of the instrument for use in the experimental animal is complicated by breed variations within the species. Therefore, the conformity of the blood analyses and the oxyhemograph values is less precise.

The development of a valid apparatus such as this oxyhemograph makes possible the study of varied problems in physiology and medicine, which deal with the degree of oxygenation of the blood.

An Application of the Oxyhemograph in the Prevention and Control of Anoxia. V. G. Behrmann and F. W. Hartman, Henry Ford Hospital.

Although the exact mechanism of narcosis remains controversial, the recent work of Schmidt and Himwich on Pentothal anesthesia suggests that a part of the narcotic mechanism is an histotoxic anoxia. If this theory is accepted, it is obvious that some degree of anoxia is an inevitable complication of anesthesia. Therefore, if anoxia cannot be prevented, its early detection is essential if irreversible tissue damage is to be avoided. Since the oxyhemograph registers a continuous record of arterial blood oxygen, the slightest trend toward anoxic anoxia, i.e., anoxemia, would be apparent. The oxyhemograph, then should prove an invaluable aid in the prevention and control of anoxia in anesthesia.

Studies on Pentothal, Pentothal—O_2, and Pentothal—N_2O — O_2 anesthesia in clinical and experimental subjects are shown which demonstrate the effectiveness of the oxyhemograph in recording an accurate tracing of blood oxygen saturation. The sensitivity of the instrument is such that the first warning of developing anoxemia is recorded much earlier than can be appreciated by clinical observations. These data show that the oxyhemograph is an effective tool for the evaluation of anesthetics, as well as an instrument of practical value in clinical anesthesia. Its scope and application to the study of all conditions which are related to anoxemia and anoxia is discussed.

THE PHYSICIAN AND THE CHILD

(Continued from Page 194)

Conclusion

Slowly but definitely, evidence is accumulating to support the thesis that there are two complementary sides to medical practice—the physical and psychical—which operate in every patient we are called upon to treat. To date, most of this evidence comes from studies on the adult patient. However, it holds equally true for the child, who likewise is an individual subjected to emotional stresses and strains. Recognizing and accepting this fact, no physician can afford to neglect either method of approach to the problems our children present.

Today there is increasing concern on all levels, local, state and national, over our greatest and most baffling medical problem, namely, nervous and mental disorders. The recently passed National Mental Health Act should serve ultimately to help us all. Many states are giving serious attention to it and are setting up programs designed to give us the help needed. Of these, Michigan is among the most progressive in establishing strategically located centers to serve its residents. An increasing number of medical schools are emphasizing the importance of the problem and are providing more adequate instruction in this new field. All of these merit our support.

But most important of all is our daily patient-by-patient contact. As we physicians give due weight to the relative importance of the emotional tensions inherent in each case and help our patients accordingly, we can institute a program of prevention and become active participants in promoting an effective program of mental hygiene.

Traditionally, we have been largely interested in the diseases of children. By shifting our interest to the child himself, we shall begin to assume fuller responsibility for shaping the adult he will become. In this way we will help conserve our country's richest resource, its people.

Immunization

On December 27, 1947, Governor Kim Sigler issued a proclamation which read in part as follows:

"I, Kim Sigler, Governor of the State of Michigan, do hereby designate the month of February, 1948, as Immunization Month in Michigan, and urge all our citizens to co-operate with Michigan's practicing doctors of medicine and official health agencies in their campaign to stamp out certain communicable diseases, to the end that we may have a still healthier State in which to live."

The Michigan State Medical Society and the Michigan Department of Health are co-operating in a voluntary program during the month of February, aimed at controlling, and eventually eradicating smallpox, diphtheria, whooping cough and tetanus. These are the diseases for which the medical profession has proved protective materials.

This program, designed to reach every child in Michigan regardless of economic status, will be carried out in co-operation with local health departments and county or district medical societies.

It is to be hoped that each doctor of medicine in Michigan will lend his whole-hearted support to this program of immunization in response to this splendid proclamation of our Governor.

P. L. Sedwick

President, Michigan State Medical Association

President's

Page

Editorial

SOCIALIZED MEDICINE, THE THIEF OF CHARACTER

AS ANTICIPATED, President Harry S. Truman, in his State of the Nation message to Congress, January 7, 1948, again urged socialized medicine. He does not call it by that name, and he does not say "compulsory" this time, but he very definitely urged the same old program. He says:

"The greatest gap in our social security structure is the lack of adequate provision for the Nation's health. We are rightly proud of the high standards of medical care we know how to provide in the United States. The fact is, however, that the most of our people cannot afford to pay for the care they need.

"I have often and strongly urged that this condition demands a national health program. The heart of the program must be a national system of payment of medical care based on well tried insurance principles. This great nation cannot afford to allow its citizens to suffer needlessly from the lack of proper medical care.

"Our ultimate aim must be a comprehensive insurance system to protect all our people equally against insecurity and ill health."

Let's have a look!!

"Most of our people cannot afford to pay for the care they need." How about it? The vast majority of the people ARE NOW PAYING for the medical care they need. The only ones who cannot are the indigent, who are cared for. Many of the middle and lower income group find the costs high, and sometimes calamatous. Some do not attempt to pay. But those who have a little initiative and are willing to try can provide for their care by prepayment. The plans are available. The president ignores over eighty million who are now carrying some form of prepayment insurance. This number is over half the population and makes the above quotation inaccurate.

The word "compulsory" is missing from this message but instead it says: "a comprehensive insurance system to protect all of our people equally, against insecurity and ill health." The word compulsory is not needed, but the designation socialized medicine is inescapable.

We are a great nation, but it was not built by sitting back and letting someone else carry the load. Our forefathers, and our fathers were men willing to DO things—not wait and ask for "Security." They worked and made their own security. This generation seems to have lost something highly desirable. They want "protection"; they want guaranteed jobs, hours of work; they want assurance that their health will be protected, even if they are too shiftless, or lack the foresight, to take advantage of the many plans for their own protection.

The greatest thing this nation needs is a reversion to the grim idea of DOING things, of independence, of looking after their own. If our people thought as much of their families as the pioneers did, they would provide for this health service by budgeting—by prepayment. Our fathers provided their wants at whatever cost. Now the prudent man can do with comparative assurance what the social planners would do for him and take away his independence. What we need is GRIT and MORE GRIT.

POLIOMYELITIS AND TONSILLECTOMY

FOR MANY YEARS children's tonsils have been removed during the summertime, opportune because of school vacations and low prevalence of respiratory diseases and infections. It seemed the ideal time. Epidemiologists then advanced their theory that recent tonsillectomies predispose to poliomyelitis infection, and advised that tonsillectomies should not be done especially during the summer months which are the predominant months for spread of poliomyelitis. This idea was taken up by health authorities with advice direct to the general public against operating on the throat during or preceding poliomyelitis prevalence.

We commented on this editorially in September, 1946 (pages 1128 and 1130); also in December, 1946 (page 1635). We questioned the connection, but asked for further information and proof of danger. We asked for facts. In the December, 1946, JOURNAL (page 1656), we published a letter from Dr. Franklin Top of the Detroit Health Department giving reports of a survey which tended to show that a tonsillectomy at any time in the past was a liability as far as poliomyelitis contagion

was concerned. We believed a determination of the relative number of persons who had recently been tonsillectomized would not materially differ from the number of poliomyelitis victims who had been tonsillectomized.

We have made an attempt to make such a study, using the numbers of tonsil operations done in a year as a measure of percentage. In 1946, Michigan Medical Service paid for 14,758 tonsillectomies done on 840,000 persons holding certificates. This is 1.75 per cent, or one and three-quarters for each one hundred persons. In the City of Battle Creek, in its five hospitals, there were 1,218 tonsillectomies during this same year (1946). Estimating 65,000, which is 20,000 over the last census report, this makes 1.87, or one and seven-eights per hundred people. Incidentally, we had only five poliomyelitis cases, and the health department has no record of whether they had tonsils or not.

The *Archives of Otolaryngology*, of November, 1947 (page 575), has a paper by Daniel S. Cunning, M.D., of New York, in which he reports a study of the relationship of tonsillectomy and poliomyelitis. There were 25,204 cases in the whole nation, and he gives a final summary covering 5,872 cases. Of these patients, ninety-one, or 1.6 per cent, had recent tonsillectomies. Dr. Cunning suggested a study of all tonsillectomies done in a large group of hospitals, with a follow-up to determine how many of these patients developed poliomyelitis.

To recapitulate, Dr. Cunning found that 1.6 per cent of poliomyelitis cases had a history of recent tonsillectomies. Michigan Medical Service finds that the general public was 1.75 per cent tonsillectomized, and the city of Battle Creek, 1.87 per cent, both favorable ratios, actually showing protection by 0.15 to 0.27 per cent. These percentages are so close that we must conclude that tonsillectomy has very little, if any, influence on the prevalence of poliomyelitis. And these figures for poliomyelitis cover 23.3 per cent of all cases in the United States. The figures for the general population of Michigan cover 900,000 persons, and should give a fair average.

Why do we again bring up this problem? Because *it is* a problem. We, as conscientious doctors, wish to give our patients the very best of care and advice. If we are increasing the danger of poliomyelitis infection we would like to know it. However, if we are to change the time of doing tonsillectomies from the most favorable season to one having manifest dangers, such as respiratory infections, or if we are to forego them entirely, and fail to protect these patients from known infections, such as rheumatism of childhood, otitis, et cetera, we must have a sound reason. Dr. Cunning raises these questions, and asks for more research.

This editorial had just been completed when the following came to our attention, forwarded by a friend who is interested in the subject because of his specialty, pediatrics:

"TONSILS LINK TO POLIO DOUBTED. San Francisco, Dec. 22-'47.—Tonsil operations apparently do not increase the danger of contracting infantile paralysis, a University of California medical school survey indicated today.

"Researchers studied 429 cases brought to two hospitals here between 1941 and 1945. These cases came from thirty-four counties in which there had been 57,796 operations for the removal of tonsils or adenoids and 2,057 cases of poliomyelitis in the four-year period.

"The number of tonsillectomized persons who contracted infantile paralysis was not greatly out of proportion to the number among the general population, the survey showed."

IMMUNIZATION OF CHILDREN

THE MICHIGAN STATE Medical Society, through its committees, especially the Committee on Child Welfare, has long advocated the immunization of children in so far as possible. Childhood, and especially infancy, is the ideal time, and we are now again advocating that our members protect the children at every reasonable opportunity.

Over a year ago the American Academy of Pediatrics, Michigan Branch, conducted a survey covering the whole state, to learn the extent of immunization and to increase it. This survey was completed and established another "Michigan First." Immunization of infants and children has increased in private practice.

Our Society is again expressing its advocacy of immunization, and is making the subject one of the main topics of the Second Annual Postgraduate Clinical Institute to be held in Detroit, March 10, 11, 12, 1948. In our Secretary's Letters and in official communications, the Council calls upon our members to do a complete job in immunization of the young and we proudly boast of Michigan's prominence in this new endeavor.

The Governor has issued a call for a special period of immunization, and we shall gladly cooperate. We believe this work can best be done in the doctor's private offices.

EARLY IMMUNIZATION OF CHILDREN

SOME OF THE advocates of state control of medical practice are constantly ringing the changes on the statement that "the practicing physician is not interested in preventive medicine." We believe that such an allegation is untrue. We further believe that it has been proven untrue through the ages during which Medicine has seized avidly anything that gave reasonable hope of preventing disease. There may be, however, a marked difference betwen the official attitude of organized medicine and the individual attitudes of medical practitioners. Of greater importance is the fact that while a doctor may support and advocate a valuable preventive procedure, he frequently finds practical obstacles in the way of putting the procedure into practice with his own patients.

A case in point is the early immunization of children. Everyone agrees that all infants should be immunized against whooping cough, diphtheria, smallpox, and possibly should have received tetanus toxoid during the first year of life. In the case of whooping cough, many pediatricians now believe that injections should be started at an age of three months or even earlier. Yet the fact remains that a major proportion of the children entering school at the age of five years have not had anything approaching such a program. This has resulted in a considerable demand that the public health agencies take over the responsibility for immunization. This demand is based on the following allegations: (1) Private practitioners have not covered a sufficient segment of the population. (2) Since general immunization programs protect the public, as well as the individual who is immunized, such service should be free to the individual.

There are obvious dangers to the public in using a public health organization to immunize infants. The assembly of babies in large numbers in clinics is undesirable from a public health standpoint. Since there may be certain infants whose physical state is such that immunization should be deferred, it is questionable whether a public health nurse is the proper person to make the necessary determinations as to the advisability of giving this or that infant this or that injection. From the standpoint of the physicians, an injection is treatment and as such is a procedure which should be performed by a physician in his private office.

It is believed that most health officers would subscribe to the above statements. We have rarely found a public health administrator who is eager to cope with the problems incident to the mass inoculation of infants. The great majority would prefer to have it carried on in the office of the private physician. It is reasonable to suppose, however, that continued failure of organized medicine to cope with this matter may force action in the interest of public health. It is incumbent on every physician who treats babies to urge the parents to permit proper preventive measures. Experience has shown that when the procedure is properly explained to them, mothers and fathers rarely refuse. It is further the duty of the physician to see that fees for immunization are not so high as to offer a serious deterrent.

If private physicians can solve this problem they will render a real public service. If, however, the majority of children continue to reach school age unprotected against the contagious diseases for which protection is available, Medicine can have no proper objection to public health authorities taking matters into their own hands.

H.F.B.

ON THE RUN . . .

In women, pulmonary tuberculosis rises to a peak at the age of twenty-three, while in males it has a greater and rising incidence from thirty-five on.

. . .

If acute reaction with hemoglobinuria follows blood transfusion, repeated transfusions of compatible blood are immediately indicated to prevent shock and promote renal blood flow.

. . .

Para-aminosalicyclic acid has demonstrated its effectiveness in controlling tuberculosis in guinea pigs and is now being tried in humans.

Selected by WILLIAM S. REVENO, M.D.

Chairman Hull on Medical Public Relations

Upon L. W. Hull, M.D., Detroit, has been placed the responsibility of chairmanning the Public Relations Committee of the Michigan State Medical Society for the year 1948. Dr. Hull is highly qualified for his new appointment by long and effective service in organized medicine and medical public relations. His statement appears below.

—EDITOR.

"It must be evident to all of us as medical men and women, whether it is approved of by the profession as a whole or by its members as individuals, that American medicine must get into the political game and pitch if it is to survive as an independent body of self-respecting individuals in this country of ours. Only a cursory look through the news of today and yesterday shows that powerful forces, in their own aggrandizement, add to their power and control over the lives of the citizens of these United States. What can the individual physician and his medical societies do to preserve the independence of his chosen profession?

"We hear a great deal about public relations these days. Good public relations for the medical profession simply mean the creation of good will on the part of our patients, the American people, toward our efforts to see that they get the best possible medical care and that they understand how they can be assured of a continuation of that same kind of care in the future. This requires that the individual practitioner keeps up to date in his profession and gives the best service of which he is capable. It is also necessary that the physician know the moves being made on the chess board of politics by those seeking to control the practice of medicine and explain to his patients how the moves will affect them and the medical care they have the right to expect. He should take time off from his practice to initiate and lead in community work for the betterment of life and health in his community.

"The Michigan State Medical Society in the past six years has built up a program of public relations of which the profession of Michigan has good reason to be proud. The program is ably managed by Mr. Hugh W. Brenneman under whose direction successful programs in Medical news and information in newspapers, on the radio and by public addresses have been activated. Mr. Brenneman has lent his assistance to lay groups to further their plans for better public health. This year the Michigan State Medical Society is enlarging its public relations programs by entering the cinema field. By this means it is thought that a larger number of people may be reached than by any other method and that medical care and facts may be presented in an understandable and pleasing way. Michigan has received national recognition for the excellence of its public relations program. It is to be hoped that soon programs of the various states and that of the American Medical Association will be integrated to a degree not present at this time. By pooling its resources the medical profession can put on a program of public relations, locally and nationally, in the news, over the air and on the silver screen which would command the attention and respect of our fellow citizens. The American people must be shown that our profession is in dead earnest in trying to preserve for them the best of medical care.

"In a world in which the trend toward socialism is making rapid strides the private practice of medicine has an answer to state medicine in its voluntary prepayment medical care plans. Good public relations require the co-operation of all practitioners of medicine, who, individually and collectively, must educate the public as to the value of the present voluntary system of medical practice. Public relations should provide good publicity, not bad publicity, news and information, not propaganda."

ROCKY MOUNTAIN SPOTTED FEVER APPEARS IN MICHIGAN

(Continued from Page 187)

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MICHIGAN POSTGRADUATE CLINICAL INSTITUTE

Detroit, March 10-11-12

The second annual Michigan Postgraduate Clinical Institute, featuring an all-Michigan program (Pages 142 and 143) will be held at the Book-Cadillac Hotel, Detroit, Wednesday, Thursday, Friday, March 10-11-12, 1948.

The Committee on Arrangements and Program is composed of H. H. Cummings, M.D., Chairman, Ann Arbor; G. C. Penberthy, M.D., Detroit; L. F. Foster, M.D., Bay City; P. L. Ledwidge, M.D., Menominee, H. M. Bishop, M.D., Saginaw, C. A. Scheurer, M.D., Pigeon, Merrill Wells, M.D., Grand Rapids—representing out-state practitioners and the Upper Peninsula; and, D. H. Kaump, M.D., Detroit, H. A. Kemp, M.D., Detroit, E. A. Osius, M.D., Detroit, Arch Walls, M.D., Detroit—representing Wayne County Medical Society and Wayne University College of Medicine.

GENERAL OUTLINE

	Wednesday March 10, 1948	Thursday March 11, 1948	Friday March 12, 1948
8:30-9:00 a.m.	Registration. Exhibits Open	Registration. Exhibits Open	Registration. Exhibits Open
9:00-12:00 M	Six practical talks	Six practical talks	Six practical talks
12:00 M-2:00 p.m.	Luncheon and speaker	Luncheon and speaker	Luncheon and speaker
2:00-4:20 p.m.	Four instructive talks	Four instructive talks	2:00-2:40 p.m., Clinical Pathological Conference (Medical Case)
4:20-5:00 p.m.	Clinical X-Ray Conference	Clinical Pathological Conference (Surgical Case)	2:40-5:00 p.m., Five interesting talks
6:30 p.m.	Dinner Hour	Dinner Hour	End of Institute
8:00-10:00 p.m.	Question Box (5 participants)	Panel Discussion (6 discussants)	
10:30 p.m.	Smoker and Entertainment		List of Exhibitors on Page 212

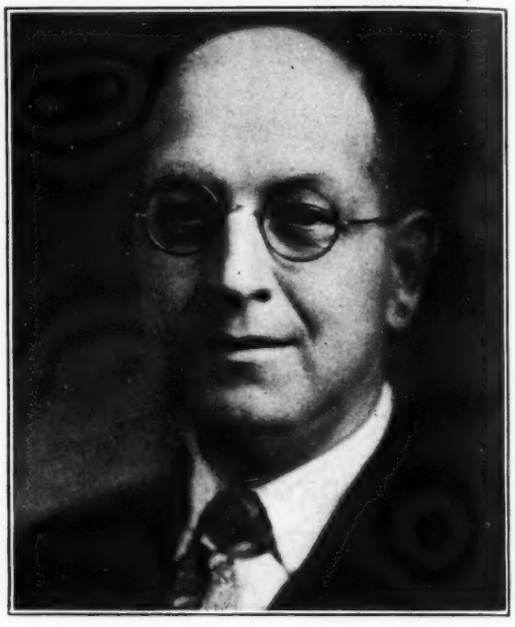
M.D., Detroit; W. A. Hyland, M.D., Grand Rapids—representing Michigan State Medical Society and University of Michigan Department of Postgraduate Medicine; E. I. Carr, M.D., Lansing, R. D. McClure, M.D., Detroit—representing Michigan Foundation for Medical and Health Education, Inc.; C. E. Bagley, M.D., Ann Arbor, A. C. Furstenberg, M.D., Ann Arbor, C. C. Sturgis, M.D., Ann Arbor, F. J. Hodges, M.D., Ann Arbor—representing University of Michigan Medical School; A. F. Bliesmer, M.D., Benton Harbor, C. G. Clippert, M.D., Grayling, W. S. Jones,

All members of the Michigan State Medical Society are invited and urged to attend this important Institute. For hotel accommodations write E. C. Texter, M.D., Chairman of Committee on Hotels, 1005 Stroh Building, Detroit 26, Michigan. Railroad accommodations, such as on the Streamliner to Detroit, should be secured at an early date.

The accompanying general outline is the summary of the three-day postgraduate Institute—an opportunity to help you keep abreast of your swiftly moving science.

In Memoriam

Fred Taylor Andrews, M.D.—Bay City, Michigan. Born April 9, 1887, at Adrian, Michigan. Received education at Adrian High School, Adrian College, Detroit College of Medicine and Surgery. Interned in Children's Free Hospital and Woman's Hospital, Detroit. Former Councilor of Michigan State Medical Society for Fourth District. In 1939 took a postgraduate course in Public Health at University of Michigan. In First World War served as Lieutenant in the Navy, 1917-1918. Former Bay County Health Director. At the time of death, surgeon and medical advisor for the Greyhound Lines, Bay City Electric Steel Casting Company and National Electric Welding Machines Company. Senior surgeon at Mercy and General Hospitals. President of the Bay County Chapter of Michigan Society for Crippled Children. Member of American Medical Association, Michigan State Medical Society, Bay County Medical Society, American Association of Industrial Physicians and Surgeons, Association of Military Surgeons. Also member of the Elks, Rotary Club, and Phi Chi Fraternity, Masonic Order, and the American Legion. Wrote articles entitled "Method of Reduction of Carpal Bones of the Wrist" and "Report on Solitary Cysts of the Spleen." Doctor Andrews passed away Sunday, December 21, 1947, at Bay City, at the age of sixty.



FRED TAYLOR ANDREWS, M.D.

* * *

Henry M. Abrams, M.D.—Detroit, Michigan. Born at Detroit in 1900. Obtained medical education and training at University of Michigan, graduating with class of 1928. Member of Wayne County Medical Society and for twelve years member of the Michigan

State Medical Society. Survived by wife, Evelyn, daughter, Donna, and brother, Lewis. Dr. Abrams passed away September 5, 1947, in Detroit at the age of forty-seven.

* * *

Albert Lissell Callery, M.D.—Port Huron, Michigan. Born in Hastings County, Ontario, Canada, in 1885. In June of 1897 was graduated from University of Toronto with M.D. and C.M. degrees. Was Assistant Director of the Port Huron-St. Clair County Department of Health. Member and long time Secretary of the St. Clair County Medical Society. Elected to Life Membership in the Michigan State Medical Society, September, 1945. He also was a charter member of the MSMS Fifty-year Club. Doctor Callery died December 3, 1947, at Port Huron, Michigan, at the age of eighty-two.

* * *

William R. Chittick, M.D.—Spring Valley, California. Born in Oshawa, Ontario, Canada, in 1857. Received education at Michigan College of Medicine and the Long Island College Hospital, New York. Was director of the Detroit Newsboys Association for 26 years. Associated with St. Mary's and Harper Hospitals and was president of the Detroit Academy of Medicine, 1895-6. He was a member of the Wayne County Medical Society and in September of 1937 was elected to Emeritus Membership in the Michigan State Medical Society, and also was a Charter Member of the MSMS Fifty-Year Club. Dr. Chittick retired from practice in 1927 and passed away January 2, 1948, at Spring Valley, California, at the age of ninety.

* * *

James Harry Cox, M.D.—Detroit, Michigan. Born in Calumet in 1872. Received medical education at the University of Michigan Medical School, Class of 1902. Served in the Spanish-American War. Formerly a member of Wayne County Medical Society and the Michigan State Medical Society. Dr. Cox passed away November 25, 1947, in Detroit, at the age of seventy-five.

* * *

Robert Emmet Flood, M.D.—Gladwin and Northport, Michigan. Born in 1870. Received education at University of Louisville Medical College, Class of 1897. Was village president for several terms. Formerly member of Wayne County Medical Society and the Michigan State Medical Society. Dr. Flood expired December 7, 1947, in Gladwin, Michigan, at the age of seventy-seven.

* * *

Ray Thomas Fuller, M.D.—Kalamazoo, Michigan. Born in Montcalm County, October 15, 1875. Received education at Carson City High School. Entered University of Michigan Medical Department in 1895. Dropped out of medical school to teach in rural schools but completed medical education at the Saginaw Valley Medical College in 1903. President of the Kalamazoo Council of Churches and Christian Education, the Burr Oak Lodge, I.O.O.F., Fidelity Masonic Lodge. Also a member of the Kalamazoo Academy of Medicine, and the American Medical Association. In September of 1946 was elected to Life Membership in the Michigan

State Medical Society. Doctor Fuller died January 7, 1948, at the age of seventy-two, in Kalamazoo, Michigan.

* * *

Sidney B. Goff, M.D.—Eaton Rapids, Michigan. Born 1898. Served in World War II as Captain in the Army Medical Corps. Member of the Eaton County Medical Society and the Michigan State Medical Society. Dr. Goff died December 26, 1947, in Eaton Rapids, at the age of forty-nine.

* * *

T. W. K. Hume, M.D.—Pontiac, Michigan. Born at Toronto, Ontario, Canada, in 1901. Received medical education at the Toronto School of Medicine. Member of the Oakland County Medical Society and the Michigan State Medical Society. Dr. Hume is survived by wife; Professor James G. Hume, his father, of Toronto; one sister and three brothers. Dr. Hume expired January 1, 1948, in Pontiac, Michigan, at the age of forty-six.

* * *

William H. Marshall, M.D.—Flint, Michigan. Born March 24, 1874, at Brampton, Ontario, Canada. Obtained education at Trinity Medical College, Toronto, Class of 1901. Took postgraduate work at University of Edinburgh and University College of London, England. Served with the British Royal Army Medical Corps in 1916-1917; and with the United States Medical Reserve Corps as Major in 1918. President of Northern-Tri-State Medical Association, 1936; President of the Genesee County Medical Society in 1926. Also served as President of the Michigan Trudeau Society; and honorary member of the Flint Academy of Surgery and the Flint Academy of Medicine. Was Chief of the Department of Medicine, Hurley Hospital, for 15 years. Fellow of the American College of Physicians. Member of the Board of Registration in Medicine six years (Michigan). Past president Wranglers Club, Flint. Member of Michigan Academy of Science, Arts and Letters, of Charles Durand Lodge, F. & A. M., and Royal Arch Masons. Doctor Marshall also was a member of the American Medical Association, and in September of 1947 was elected to Life Membership in the Michigan State Medical Society, which organization he served as president in 1927. He died at Flint, Michigan, at the age of seventy-three years, January 8, 1948.

* * *

Samuel H. Rutledge, M.D.—Rogers City, Michigan. Born in Ontario, Canada, November 25, 1878. Received medical education at Queen's College, Kingston, Ontario, Class of 1904. Interned at the Post Graduate Hospital, Chicago. Former member of the Alpena County Medical Society and the Michigan State Medical Society. Main interest was surgery but he was very successful as a general practitioner. Dr. Rutledge expired December 29, 1947, at Rogers City, Michigan, at the age of sixty-nine.

* * *

Jeanne Cady Solis, M.D.—Ann Arbor, Michigan. Born in Mooretown, Ontario, Canada, February 13, 1867. Graduate of the Medical School of the University of Michigan, Class of 1892. Charter member of Alpha Epsilon Iota (Women's Medical Sorority). Member of the Washtenaw County Medical Society, and was elected

to Emeritus Membership in the Michigan State Medical Society in September of 1942. Also Charter Member of the MSMS Fifty-Year Club. Dr. Solis retired from active practice in 1944 and died December 18, 1947, at Ann Arbor, Michigan, at the age of eighty.

* * *

Edgemont D. Welsh, M.D.—Grand Rapids, Michigan. Born in St. Louis, Missouri, 1884. Obtained medical education at the Michigan College of Medicine and Surgery, Detroit, graduating in the Class of 1904. Former member of the Kent County Medical Society and the Michigan State Medical Society. Dr. Welsh passed away December 5, 1947, in Grand Rapids, Michigan, at the age of sixty-three.

* * *

We Are Sorry

Our humble apology to Wayne A. Geib, M.D., Rapid City, South Dakota, for printing his obituary in THE JOURNAL MSMS, Page 96, of the January, 1948, issue.

Word has been received from L. O. Geib, M.D., Detroit, Michigan, that his son Wayne is very much alive and is the pathologist to St. Johns Hospital and Black Hills Memorial Hospital of Rapid City, South Dakota, St. Joseph's Hospital at Deadwood and Veteran's Hospital at Sturgis, South Dakota.

We regret this error caused through the receipt of inaccurate information.

It might be proper at this time to state that THE JOURNAL MSMS receives meager information concerning the death of former members and if arrangements could be made to have exact information concerning their departure from this old globe forwarded to THE JOURNAL MSMS, longer articles could be printed. Maybe this information should come from the County Medical Society. We at the JOURNAL office feel that every deceased member should be given generous space in the "In Memoriam" column so that colleagues may be informed of their loss. Co-operation of members and county secretaries in this matter is solicited.

Woman's Auxiliary

The Woman's Auxiliary to the Michigan State Medical Society has adopted as one of its projects the sale of Easter Seals for the Michigan Society for Crippled Children and Disabled Adults, Inc.

Mrs. T. Grover Amos, president, has appointed the following committee to assist with the Easter sale of 1948: Mrs. C. T. Mehas, Pontiac; Mrs. Walter S. Stinson, Bay City; Mrs. Leonard Folkers, Lansing.

Mrs. Amos also appointed the following committee to work on the Red Cross Blood Bank project: Mrs. R. S. Breakey, Lansing; Mrs. L. Paul Sonda, Detroit; Mrs. L. O. Shantz, Flint.

MICHIGAN POSTGRADUATE CLINICAL INSTITUTE

1948 Exhibitors

A. S. Aloe Company, St. Louis, Mo., Booth No. 27
Ames Company, Inc., Elkhart, Ind., Booth No. 17
Baker Laboratories, Cleveland, Ohio, Booth No. 13
Barry Laboratories, Inc., Detroit, Mich., Booth No. 1
Becton Dickinson & Co., Rutherford, N. J., Booth No. 34
Bilhuber-Knoll Corporation, Orange, N. J., Booth No. 18
The Borden Company, New York, Booth No. 4
Camel Cigarettes, New York, Booths No. 28 and 29
S. H. Camp & Company, Jackson, Mich., Booth No. 56
Ciba Pharmaceutical Products, Inc., Summit, N. J., Booth No. 38
Cottrell-Clarke, Inc., Detroit, Mich., Booth No. 12
Davis & Geck, Inc., Brooklyn, N. Y., Booth No. 57 & Cinema Room
Detroit X-Ray Sales Company, Detroit, Mich., Booths Nos. 54 and 55
Doho Chemical Corporation, New York, Booth No. 24
Electro Chemical Equipment Co., Detroit, Mich., Booth No. 25
Farnsworth Laboratories, Chicago, Ill., Booth No. 21
C. B. Fleet Company, Inc., Lynchburg, Va., Booth No. 11
Gerber Products Company, Fremont, Mich., Booth No. 8
Otis E. Glidden & Co., Evanston, Ill., Booth No. 31
Hack Shoe Company, Detroit, Mich., Booth No. 3
J. F. Hartz Company, Detroit, Mich., Booth No. 36
Holland-Rantos, Inc., New York, Booth No. 50
G. A. Ingram Company, Detroit, Mich., Booth No. 32
A. Kuhlman & Company, Detroit, Mich., Booth No. 43
Lea & Febiger, Philadelphia, Pa., Booth No. 41
Liebel-Flarsheim Company, Cincinnati, Ohio, Booth No. 46
Eli Lilly & Company, Indianapolis, Ind., Booth No. 26
J. B. Lippincott Company, Philadelphia, Pa., Booth No. 33
M & R Dietetic Laboratories, Columbus, Ohio, Booth No. 34
Maico Company, Inc., Detroit, Mich., Booth No. 40
Mead Johnson & Company, Evansville, Ind., Booth No. 42
Medical Fabrics, Inc., Paterson, N. J., Booth No. 20
Medical Arts Surgical Supply Co., Grand Rapids, Mich., Booth No. 39
Medical Protective Company, Fort Wayne, Ind., Booth No. 19
Merck & Company, Inc., Rahway, N. J., Booth No. 45
C. V. Mosby Company, St. Louis, Mo., Booth No. 49
Wm. R. Niedelson Co., Detroit, Mich., Booth No. 47
Parke, Davis & Company, Detroit, Mich., Booths No. 14 and 15
Pet Milk Sales Corporation, St. Louis, Mo., Booths No. 9 and 10
Philip Morris & Company, Ltd., New York, Booth No. 7
Pitman-Moore Company, Indianapolis, Ind., Booth No. 53
Randolph Surgical Supply Co., Detroit, Mich., Booth No. 6
Rare Chemicals, Inc., Harrison, N. J., Booth No. 35
Sanborn Company, Cambridge, Mass., Booth No. 30
Sandoz Chemical Works, Inc., New York, Booth No. 52
W. B. Saunders Company, Philadelphia, Pa., Booth No. 2
Schering Corporation, Bloomfield, N. J., Booth No. 37
G. D. Searle & Company, Chicago, Ill., Booth No. 44
Sharp & Dohme, Inc., Philadelphia, Pa., Booth No. 48
Smith, Kline & French Labs., Philadelphia, Pa., Booth No. 16
VanPelt & Brown, Inc., Richmond, Va., Booth No. 22
White Laboratories, Newark, N. J., Booth No. 23
Winthrop-Stearns, Inc., New York, Booth No. 51

What's What

Be sure to renew your Federal and State Narcotic licenses on or before July 1, 1948.

* * *

A. C. Furstenberg, M.D., Ann Arbor, is the author of an original article, "Diseases of the Salivary Glands" which appeared in JAMA, January 3, 1948.

* * *

The Oakland County Social Welfare Board adopted the Uniform Fee Schedule for Governmental Agencies as of December 22, 1947.

* * *

John S. Lambie, M.D., Birmingham, has been appointed as MSMS representative to the Health Committee of the Michigan Congress of Parents and Teachers.

* * *

Earl A. Peterman, M.D., of Detroit is the author of a paper on "Glucuronic Acid Deficiency in the Rheumatic Diseases" published in the *Journal-Lancet,* December, 1947.

* * *

Archives of Surgery, November, 1947, contained two papers by Michigan doctors: "Medullary Tractomy for Relief of Intractable Pain in Upper Levels" by A. C. Crawford, M.D., Detroit; and "Experiences With the Blalock Operation for Tetralogy of Fallot," by F. D. Dodrill, M.D., Detroit.

The University of Texas, Medical Branch, Galveston, announces a postgraduate course in physical medicine and rehabilitation to be held March 1-5, 1948. For program and full information write W. A. Selle, Director, University of Texas, Medical Branch.

* * *

"*It is the overwhelming consensus* of expert opinion that the Administration will undertake a relentless drive for the enactment of compulsory sickness insurance legislation this year—1948 is the 'Year of Decision.'"—National Physicians Committee, December 11, 1947.

* * *

"*It is as difficult* to be neutral about compulsory sickness insurance as to be neutral about the commission of murder."

"In other countries legislation for national social insurance has always meant subjugation of the individual to the Government."—*American Medicine and the Political Scene,* December 26, 1947.

* * *

John Martin Weller, M.D., Ann Arbor, has been awarded the first Alfred Stengel Research Fellowship by the American College of Physicians. This will enable Dr. Weller to undertake studies concerning the ionic pat-

(Continued on Page 216)

HOSPITALS IN THE STATE OF MICHIGAN APPROVED FOR ROTATING INTERNSHIP TRAINING

Michigan State Board of Registration in Medicine
Revised to October, 1947.

Name of Hospital	Location	Capacity	Total Patients Admitted	Internships	Stipend per Month	Service Commences
St. Joseph's Mercy Hospital	Ann Arbor	313	6,954	6	$100.00	July
University Hospital	Ann Arbor	934	14,471	27	20.00	July
Leila Y. Post Montgomery Hospital	Battle Creek	200	6,749	2	100.00	July
Mercy Hospital	Bay City	160	5,455	3	100.00	July
Charles Godwin Jennings Hospital	Detroit	108	2,658	4	125.00	July
City of Detroit Receiving Hospital	Detroit	633	16,816	40	103.00	July
Evangelical Deaconess Hospital	Detroit	225	6,906	6	150.00	July
Grace Hospital	Detroit	513	15,194	36	50.00	July
Harper Hospital	Detroit	685	19,950	36	28.00 (b)	Varies
Henry Ford Hospital	Detroit	634	16,430	30	170.00 (a)	July
Mt. Carmel Mercy Hospital	Detroit	575	16,227	12	100.00	July
Providence Hospital	Detroit	444	12,873	20	125.00	July
St. Joseph's Mercy Hospital	Detroit	246	7,202	4	100.00	July
St. Mary's Hospital	Detroit	350	9,795	12	75.00	July
United States Marine Hospital	Detroit	293	3,892	6	162.81	July
Woman's Hospital	Detroit	352	8,138	6	80.00	July
Wayne County Gen. Hosp. & Infirm.	Eloise	6,368	5,205	24	167.50	July
Hurley Hospital	Flint	484	13,899	16	50.00	July
St. Joseph Hospital	Flint	275	7,105	4	....	July
Blodgett Memorial Hospital	Grand Rapids	210	5,039	6	75.00	Quarterly
Butterworth Hospital	Grand Rapids	286	9,081	8	50.00	July
St. Mary's Hospital	Grand Rapids	321	8,255	7	100.00	Varies
Highland Park General Hospital	Highland Park	300	8,085	8	100.00	July
W. A. Foote Memorial Hospital	Jackson	185	5,632	2	100.00	July
Mercy Hospital	Jackson	150	5,045	3	150.00	August
Borgess Hospital	Kalamazoo	295	6,184	4	100.00	July
Bronson Methodist Hospital	Kalamazoo	170	5,072	6	100.00	July
Edward W. Sparrow Hospital	Lansing	253	7,103	7	230.00	July
St. Lawrence Hospital	Lansing	270	6,712	8	....	July
Hackley Hospital	Muskegon	174	5,177	4	....	July
Pontiac General Hospital	Pontiac	225	7,058	3	165.00	Varies
Saginaw General Hospital	Saginaw	250	7,041	3	50.00	July
St. Mary's Hospital	Saginaw	204	5,791	2	....	July

(a) In lieu of maintenance.
(b) Bonus in addition to salary.

(Continued from Page 214)

terns of the intracellular fluids and their influence on enzymatic reactions; of acid-base balance in tissues other than skeletal muscle tissues.

Congratulations, Dr. Weller!

* * *

The Detroit Medical Assistants Society held its annual meeting in December and elected Mrs. Ruth Ceaser, 1025 David Whitney Bldg., Detroit, as president, and Mrs. Sara Coffman, 901 David Whitney Bldg., Detroit, as chairman of the Detroit Convention Committee in charge of arrangements for the meeting scheduled for September 24, 1948.

* * *

J. Duane Miller, M.D., Grand Rapids, Councilor of the Fifth District, MSMS, was guest speaker on the occasion of the annual convention of the Michigan Association for Health, Physical Education, and Recreation, in Grand Rapids on February 20. Dr. Miller's subject was "The Relationship of Health and Physical Education to Medicine."

* * *

Civilian doctors may now become commissioned officers in the regular Navy, with no age limit (formerly thirty-two years of age), provided they meet professional and physical qualifications, according to a recent communication from C. A. Swanson, Rear Admiral, Surgeon General, U. S. Navy. Doctors in civilian practice may enter the Navy and be commissioned with the rank up to and including Captain. For information write the Bureau of Navy Personnel via Bureau of Medicine and Surgery, Navy Department, Washington 25, D. C.

* * *

The United States News compares purchasing power in 1939 before high income tax and after, with the same salaries now related to increased taxes and living costs, as follows:

$ 10,000	then yielded	$ 9,657;	now	$ 5,055
12,000	then yielded	11,478;	now	5,896
15,000	then yielded	14,169;	now	7,057
25,000	then yielded	22,673;	now	10,235
100,000	then yielded	68,003;	now	23,416

* * *

The Rocky Mountain Medical Journal for October carried an article congratulating the Colorado State Medical Society on its Seventy-Seventh Annual Session. One of the outstanding features of the session was the fact that more than 70 per cent of its members attended. *The Journal* says, "Perhaps a compact state like Rhode Island or Connecticut or Delaware occasionally registers 70 per cent of its membership at an annual session, but any western state has a right to be proud of such a record."

* * *

The MSMS Cancer Control Committee co-operated with the University of Michigan School of Public Health and the Michigan Department of Health in holding an In-service Training Course on Cancer Services, at the School of Public Health, Ann Arbor, on January 26-

27-28. The program was designed primarily for full-time health officers from the cities and counties of Michigan as well as the supervising nurses from these organizations.

* * *

The American Congress of Physical Medicine will hold its midwestern sectional meeting and seminar at Veterans Administration Hospital, Hines, Illinois, February 26-27, 1948. A seminar on spinal cord injuries will feature this meeting, to be addressed by physicians associated with Northwestern University Medical School, the University of Illinois College of Medicine, and the V. A. Hines Hospital. For program write Louis B. Newman, M.D., Chief, Physical Medicine Rehabilitation Service, V. A. Hospital, Hines, Illinois.

* * *

Government now costs Americans more than $51 billion per year—virtually 25 per cent of all the goods and services produced. In the fiscal year 1947, taxpayers paid $39,600,000,000 for Federal government. They paid $5,900,000,000 for state government. They paid $5,600,000,000 for local government. Every citizen feels the impact of this high-cost government. He feels it in runaway prices, in a tax burden which shrinks income, and in inability to put aside funds for a rainy day. —*Michigan Survey,* January 12, 1948.

* * *

Joe A. Clark, Executive Secretary of the Public Relations Committee, State Medical Association of Texas, Fort Worth, was a guest at the Annual County Secretaries-Public Relations Conference of the Michigan State Medical Society held in Detroit, on January 25. In sending him from Texas to Michigan, Secretary Harold M. Williams, M.D., of the State Association wrote: "It appears from the announcement in JAMA that the program of your County Secretaries-Public Relations Conference which you have planned will be of value to us in our Public Relations activities."

* * *

Don't Be Fooled.—The following note from Bulletin No. 14 of the Washington office of the Council on Medical Service sounds nice, but may be deceiving:

"You are all aware of the fact that *Senator Smith* addressed a communication to the governors of the States early in the summer, asking them several specific questions as to their attitude on S. 545 and S. 1320. It is said that the governors, in their responses, were almost unanimously opposed to Federal interference in health matters in their respective states. They stated that they could best take care of their medical problems themselves."

* * *

Anti-Rh Serum.—The development by Philip Levine, M.D., of a highly accurate diagnostic anti-Rh serum derived from human blood for determining whether an individual has Rh negative or Rh-positive blood has been announced. It is now available for use in hospital and clinical laboratories to prevent intra-group transfusion accidents, and for the selection of Rh-negative blood for the affected infants of Rh-negative mothers.

Dr. Levine did pioneer work in the discovery of the cause of erythroblastosis fetalis, and has for three years

been director of biological division of the Ortho Research Foundation. This serum now being produced under government license is one of the first to be approved by the National Institute of Health of the U. S. Public Health Service.

* * *

The Association for the Study of Internal Secretions announces a course of lectures and demonstrations in Clinical Endocrinology to be held at the Biltmore Hotel, Los Angeles, February 23 to 28, 1948. This course will be a practical one of value to general practitioners and specialists alike. Among the faculty for the course is Warren O. Nelson, M.D., of Wayne University College of Medicine, Detroit. For program and further information write E. Kost Shelton, M.D., Chairman of the Postgraduate Committee, 921 Westwood Boulevard, Los Angeles 24, California.

* * *

Postgraduate Course in Diseases of the Chest.—The American College of Chest Physicians, Pennsylvania Chapter, and the Laennec Society of Philadelphia are sponsoring a postgraduate course in diseases of the chest to be held during the week of March 15-20, 1948, at the Warwick Hotel, Philadelphia, Pennsylvania.

The emphasis in this course will be placed on the newer developments in all aspects of diagnosis and treatment of diseases of the chest.

The course will be limited to 30 physicians. Tuition fee is $50.00 for members, and $90.00 for nonmembers.

Further information may be secured at the office of the American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

* * *

Chicago Doctors Keep Posted.—The Chicago Medical Society has inaugurated a weekly mimeographed publication entitled "This Week in Chicago Medicine." It was designed to keep the Chicago medical profession posted on "what's going on." The first issue, prepared by Misses Jean McArthur and Ellen Carpenter, lists meetings of the specialty groups, all the medical libraries in the city, the medical schools, a directory of Cook county hospitals, and a schedule of meetings, clinics and conferences planned at Chicago hospitals during the week. Copies may be obtained from the Chicago Medical Society, 30 North Michigan Ave., Chicago 2.

* * *

The Council of the Wayne County Medical Society has recently approved the following recommendations relative to the size of signs for doctors' offices:

"That a sign may be not more than four feet long and two feet wide, with letters not to exceed three inches in height, and that a sign may include the doctor's name, office hours, and state specialty if practice is limited, for example: "Practice limited to Eye, Ear, Nose and that no border may be used on a sign, that only one color may be used for the lettering, and that it be recommended that 'M.D.' be used instead of the title, 'Dr.' "—*Detroit Medical News,* November 17, 1947.

"Is Medical Care Expensive?" . . . Frank D. Dickinson, Ph.D., Director of the Bureau of Medical Economic Research of the AMA has just published a valuable study on this question. The survey brings out that, although the percentage of average income expended on medical care is declining, the proportion expended for alcoholic beverages, recreation, jewelry, and cosmetics has increased. In fact, in 1946, consumers spent considerably more for both alcoholic beverages and recreation than for medical care.

MSMS members may obtain this study free of charge from the Bureau of Medical Economic Research, AMA, 535 N. Dearborn, Chicago 10, Illinois.

* * *

Michigan Pathological Society.—An annual meeting of the Michigan Pathological Society was held at the University Hospital, Ann Arbor, on Saturday, December 13, 1947, with Dr. Carl V. Weller as host. The scientific meeting included a presentation of problems in pathological diagnosis. The following officers were elected for 1948:

President: A. A. Humphrey, M.D., Battle Creek; President-Elect, D. H. Kaump, M.D., Detroit; Secretary-Treasurer, W. A. Stryker, M.D., Wyandotte; Councilor, S. E. Gould, M.D., Eloise.

The next meeting of the Society will be held in Detroit on February 14, 1948.

* * *

The Harness Committee, continuing its work during the summer, requested certain officials of the Department of Agriculture, located in the Central states, to state their reason for the issuance of certain communications they directed to farm groups earlier this year, calling attention to the reduction Congress was proposing to make in the Department of Agriculture's budget. The Committee wanted to know whether it was the intention of the writers of these communications to stimulate the farmers to file with their Congressmen opposition to the reduction. The contention of the Committee was that the writers of the communications, being at the time employes of the Department of Agriculture, could be said to be lobbying in its interest. The situation is similar to others that the Committee investigated, where Government employes advocated the enactment of health insurance legislation.

* * *

Appointments to State Commissions—

H. H. Cummings, M.D., Ann Arbor, and *E. J. O'Brien, M.D.,* Detroit, were reappointed by Governor Sigler to the State Tuberculosis Sanatorium Commission for terms ending October 9, 1950.

A. D. Allen, M.D., Bay City, and *John R. Rodger, M.D.,* of Bellaire, were appointed as members of the Michigan Advisory Hospital Council (under the 1947 Hospital Survey and Construction Act of Michigan). Among additional members are the State Health Commissioner and the Director of the State Mental Health Department.

The Michigan Hospital Advisory Council held its first meeting, December 23, in Governor Sigler's office. The Council's application for survey funds has been approved by the Federal authorities and the survey budget will

be presented for approval, on the Federal level, early in 1948. When approved, Federal funds will become available for survey work (not for construction of hospitals, as yet).

* * *

Health Insurance.—Sometimes we are inclined to feel that the *interest in health insurance is so universal* that it must be a live topic in every state, and it was reported last year that the proponents of Federal legislation would divert their activities to the States, hoping for success in having States enact legislation of this character. It would have its effect ultimately on the Congress. The logical approach was on the basis of cash sickness and unemployment sickness benefits, somewhat after the style that prevails in Rhode Island, and has been sponsored by the Governor of California. A survey of the accomplishments of the legislatures of 1947 shows that the interest is far from universal. According to a survey made by the Research Council for Economic Security, Chicago; 50 bills were introduced in all of the state legislatures, and 20 of these were before the New York State Legislature. Massachusetts had 7; New Jersey, 5; Connecticut, 4; Pennsylvania and Washington, 2 each; and 10 other states had one bill each, and they were located in the far West and the North Central, with Alabama as an exception. No such legislation was proposed in the other thirty-two states.

YOUR PHOTOGRAPH

Joseph Merante, Jr., portrait photographer, 475 Fifth Ave., New York, will visit Michigan beginning January 2 to take photographs of additional members of the Michigan State Medical Society. Without any obligation to the individual member or to the Michigan State Medical Society, Mr. Merante has agreed to furnish a glossy print of the portrait of every member of the State Society who sits for a photograph. Through this arrangement, the MSMS archives will include a photograph of every member in the State, eventually. The cooperation of the membership is invited.

Legislation of interest to physicians, passed in Michigan during the year 1947:

A law requiring annual registration of both dentist and dental hygienist, Public Act No. 205.

A law requiring the licensing of hospitals caring for mentally diseased persons and for insane, epileptic or feeble-minded persons or persons addicted to the intemperate use of narcotic drugs, alcohol or other stimulants. Public Act No. 106.

A law authorizing the state commissioner of health to promulgate rules and regulations controlling the humane use of animals for the diagnosis and treatment of human and animal diseases, the advancement of veterinary, dental, medical and biologic sciences, and the testing and diagnosis, improvement and standardization

of laboratory specimens, biologic products, pharmaceuticals. The law further required that no person, firm or corporation shall keep or use animals for experimental purposes unless registered to do so by the state commissioner of health. Public Act No. 241.

A law provided for the appointment of a commission to survey the procedure concerning the commitment and care of mentally ill persons. Mich. Acts 1947.

A law designated to enable hospitals to take advantage of the provisions of the federal hospital construction act. This act followed quite closely the model law prepared by the Council of State Governments in that they required a survey of hospital facilities in the state and the preparation of a program for the construction of additional needed facilities.

The laws also required the appointment of an Advisory Hospital Council. Public Act No. 229.

* * *

VA Hometown Pharmacists' Service.—The Michigan State Pharmaceutical Association has a state-wide plan whereby World War II veterans with service-connected disabilities may receive prescription service at government expense from hometown pharmacists of their choice upon authorization of physicians approved by the Veterans Administration.

The fee-basis or designated physician should feel free to patronize these approved pharmacists in order to avoid undue delay to the veteran in receiving his medication. The requirement of the physician is as simple as writing a prescription for any other patient. When authorization has been granted to the physician to render medical service to a Veterans Administration beneficiary and the type of medication needed is determined, all that is required is the name of the veteran, his address, and, if possible, his claim number on the physician's own prescription blank with the following legend over his signature: "I am authorized by the Veterans Administration to treat and prescribe for the above-named Veterans Administration patient." This statement may be printed, written, typed, or stamped on either side of the prescription blank. This prescription cannot be refilled except upon a new prescription from the prescribing physician.

In addition to the medication needed, the following listed items have been approved and designated as "medical requisites" which may be obtained through this service:

1. Insulin syringe and two (2) needles
2. Two (2) hypodermic (insulin type) needles
3. Atomizer
4. Nebulizer
5. Hot water bottle
6. Fountain syringe
7. Combination hot water bottle and syringe
8. Ice bag
9. Ice cap
10. Urinal
11. Bedpan
12. Enema can
13. Feeding tube
14. Ear and ulcer syringe

Prescriptions of "medical requisites" are not refillable

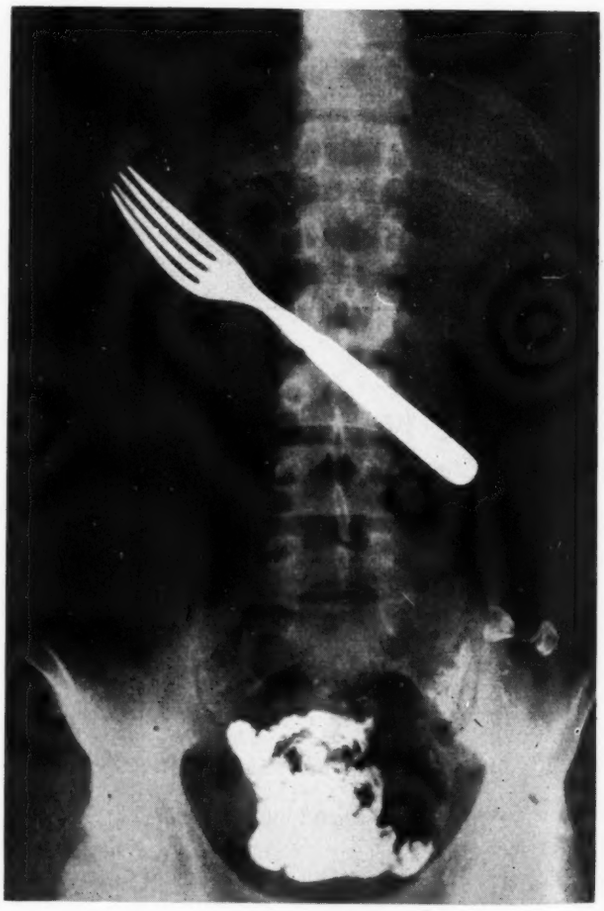
and will be issued only upon presenting a new prescription written by the prescribing physician. Prescriptions for medical requisites must be for a single item, must bear name and address of the veteran with a signed statement of authorization of the prescribing physician.

Other medical requisites, such as gauze, bandages, adhesive tape, elastic stockings, supporters, etc., may be obtained by a written prescription when submitted to the nearest Veterans Administration regional office. They cannot be obtained through the pharmaceutical association's state-wide plan.

* * *

Slight Case of "Stomach Trouble"

Radiologic evidence of a fork removed from the stomach of a Navy veteran, Joseph Lobner, according to a report by James M. Sullivan, M.D., attending consultant in general surgery, Veterans Administration Center, Wood, Wisconsin, and Willard B. Ross, M.D., of Milwaukee, Wisconsin, in a recent issue of the *Wisconsin State Medical Journal*. The patient's only symptoms were "stomach trouble" for three years, with loss of weight and hematemesis. He cannot account for the fork.



(Photo through courtesy of *General Electric X-Ray News.*)

THE DOCTOR'S LIBRARY

Acknowledgment of all books received will be made in this column, and this will be deemed by us as a full compensation of those sending them. A selection will be made for review, as expedient.

HISTORY OF MEDICINE. A Correlative Text, Arranged According to Subjects. By Cecelia C. Mettler, A.B., Ed.B., A.M., Ph.D. Late Associate Professor of Medical History, University of Georgia School of Medicine, and Late Associate in Neurology, College of Physicians and Surgeons, Columbia University. Edited by Fred A. Mettler, A.M., M.D., Ph.D., Associate Professor of Anatomy, College of Physicians and Surgeons, Columbia University. 1104 Pages with 16 Illustrations. Philadelphia: The Blakiston Company, 1947. Price $8.50.

This is a very complete volume, two columns to the page, and 1104 pages of text. This is a history of the various phases of medicine, starting with a history of Anatomy and Physiology to the middle ages. It treats of the subject in Egypt, Syria, Persia, the Orient, gives names of persons and a little sketch of what they did, or their influence on the advancement of the subject under discussion. Next is Anatomy to the modern period, then Physiology, Pathology, Bacteriology, Physical Diagnosis. Then follows a history of the specialties, each carried from the first primitive stages down to the present time, giving names, and short notes: Medicine, Neurology and Psychiatry, Venereology, Dermatology, Pediatrics, Surgery, Obstetrics and Gynecology, Ophthalmology, Otology and Laryngology. These are very complete. The book has forty pages of index of names mentioned in the text with a subject index of seventy pages. This is one of the most detailed histories we have ever seen and would make an invaluable reference for research. The progress of knowledge in almost any medical subject could be followed.

THE FOOT AND ANKLE. Their Injuries, Diseases, Deformities and Disabilities. By Phillip Lewin, M.D., F.A.C.S., Associate Professor of Bone and Joint Surgery, and Acting Head of Department, Northwestern University Medical School; Professor of Orthopedic Surgery, Postgraduate Medical School of Cook County Hospital; Attending Orthopaedic Surgeon, Cook County Hospital; Senior Attending Orthopaedic Surgeon, Michael Reese Hospital, Consulting Orthopaedic Surgeon, Municipal Contagious Disease Hospital, Chicago; formerly Colonel, Medical Corps, Army of the United States. 389 illustrations. Line drawings by Harold Laufman, M.D., F.A.C.S., Associate in Surgery, Northwestern University Medical School; formerly Major, Medical Corps, Army of the United States. Third edition, thoroughly revised. Philadelphia: Lea & Febiger, 1947. Price $11.00.

Dr. Lewin, in dedicating his book "The Foot and Ankle" to Dr. Allen B. Kanavel, has tried to do for the foot what Dr. Kanavel did for the hand. Undoubtedly, after reading it, everyone will agree that he has amply met all of Dr. Kanavel's requirements.

This third edition is greatly enlarged over the previous ones and is adequately illustrated throughout. Numerous outlines and charts, framed to attract the eye of the reader, are extremely helpful when using this book for reference. The "Pedigrams" in the appendix are clever sayings, all of which have a point to be remembered.

This volume of 800 pages begins with an adequate discussion of the embryology and anatomy of the foot and ankle, continues with physiology, biochemistry and then, in detail, goes into the specific deformities and afflictions of the foot and ankle. Several chapters are allotted to the effects of trauma, and the latest methods for the

handling of fractures and dislocations are discussed in detail. Reconstructive surgery has been given a prominent place. Infections, metabolic disorders and tumors are all carefully and thoroughly discussed. There is no condition involving the foot, seen by the general practitioner or the specialist, that is not fully discussed by Dr. Lewin. This volume should be considered a "must" for every medical library.

P.C.K.

FUNDAMENTALS OF PSYCHIATRY. By Edward Strecker, M.D., Sc.D., LL.D., Litt.D., F.A.C.P. Professor of Psychiatry and Chairman of the Department, Undergraduate and Graduate Schools of Medicine, University of Pennsylvania; Psychiatrist to the Pennsylvania, Philadelphia and Germantown Hospitals; Consultant and Chief of Service, Institute of the Pennsylvania Hospital,, Consultant to the Surgeon General, U. S. Navy; Formerly Consultant for the Secretary of War to the Surgeons General of the Army and AAF Senior Consultant in Psychiatry, Veterans Administration; Consultant in Mental Hygiene, USPHS Chairman Committee on Psychiatry, National Research Council, and American Red Cross. Fourth Edition. 21 Illustrations. Philadelphia: J. B. Lippincott Company, 1947. Price $4.00.

This book is one of a group designed to make the practice of medicine in various groups of diseases more exact, by providing the commoner and more accurate facts and theories. The teaching is partly by case reports which are well presented with much detail, so that the practitioner or the student will have something definite to grasp. This is a fourth edition and has been extensively revised. Space is given to the war neuroses and relations of psychiatry to the many manifestations found. The book is small but complete, in so far as possible in a monograph. The work, which is the free expression of an able teacher and his experiences, is well worth while.

PHYSIOLOGY OF MAN IN THE DESERT. By E. F. Adolph, Ph.D., Associate Professor of Physiology, University of Rochester; and Associates. New York: Interscience Publishers, Inc., 1947. Price $6.50.

This monograph of over 350 pages contains the studies and deductions from work done under a contract recommended by the Committee on Medical Research, between the United States Office of Scientific Research and Development, and the University of Rochester School of Medicine and Dentistry. The project was undertaken to determine the reactions and resistance of man living in the desert. Elaborate studies were made of water balance, requirements under desert or heat conditions, and what would be the result of deficiencies. Heat exchanges, rates of sweating with salt and water losses, and tolerance were studied. Urinary contents and secretions are a part of the whole problem, as are also the blood and its chemistry. There is also a comparison of man on a raft and man in the desert. This is a very valuable contribution to our knowledge, and will have its influence on treatment of certain deficiencies.

INFANT NUTRITION, A TEXTBOOK OF INFANT FEEDING FOR STUDENTS AND PRACTITIONERS OF MEDICINE. By P. C. Jeans, A.B., M.D., Professor of Pediatrics, College of Medicine State University of Iowa, Iowa City, and Williams McKim Marriott, B.S., M.D., Late Professor of Pediatrics, Washington University School of Medicine; Physician in Chief, St. Louis Children's Hospital, St. Louis. Fourth edition. St. Louis: The C. V. Mosby Co., 1947. Price $6.50.

Numerous changes have been made in this new edition of a work which has long been standard in its class. While it is impossible for any textbook to keep com-

pletely abreast of new information in this rapidly changing field, the revision accomplished by the author is of sufficient thoroughness that it insures the essential authority and modernity of the work.

Particularly commendable is the conservative attitude the text exhibits toward subjects now in considerable controversy. For instance, no great emphasis is placed on a rigid feeding schedule without going the entire route toward so called "demand feeding." The chapter on "Vitamins" is especially valuable, and the one detailing "Miscellaneous Techniques" is very practical.

It is difficult to see how any physician whose practice includes the care and feeding of infants and children can properly perform his duty without the information contained in such a text as this at his elbow.

H.F.B.

FUNDAMENTALS OF IMMUNOLOGY. By William C. Boyd, Ph.D., Associate Professor Biochemistry, Boston University School of Medicine, Second edition, completely revised and rewritten. New York: Interscience Publishers, Inc., 1947. Price $6.50.

The second edition of "Fundamentals of Immunology like the first, is addressed to medical students and those interested in research. The author states it is not the purpose of the book to be exhaustive but rather to cover the fundamentals of immunology, as the title implies. This latter accomplishment the author does very well in a way that makes an exceedingly complex subject matter appear remarkably clear to the reader. The author does not sacrifice detail and thoroughness in covering the subject matter for clarity but rather it is presented in a way that makes the volume an excellent reference book for the research worker, student or the practicing physician.

While no busy practicing physician would be inclined to spend an evening or two reviewing this subject matter as easy reading, the book does have a place in the physician's library for refernce or for reviewing a chapter from time to time.

Ample references are supplied in case the reader wishes to investigate more thoroughly any work or studies referred to in the text.

G.A.Z.

SEXUAL BEHAVIOR IN THE HUMAN MALE. By Alfred C. Kinsey, Professor of Zoology, Indiana University; Wardell B. Pomeroy, Research Associate, Indiana University; and Clyde E. Martin, Research Associate, Indiana University. 804 pages—173 charts—159 tables. Philadelphia and London: W. B. Saunders Company, 1948. Price $6.50.

This volume is presented as a factual study of sexual behavior in the human male. It is based on 12,000 case histories with particular reference to the data on 5,300 males. Many medical, psychiatric and educational groups as well as penal and other institutions have contributed to the enormous amount of material correlated and presented by the authors. This is essentially a reference book, the first in a series which will add materially to our understanding of sex behavior. The book is divided into three main parts: (1) History and Method; (2) Factors Affecting Sexual Outlet and (3) Sources of Sexual Outlet. No moral evaluation is attempted. Necessarily a large amount of the data is presented in tables and graphs, but there is also an adequate discussion of

each problem which can arise in the sexual behavior of the male. This is not a book for the general practitioner, but is of value to the psychiatrist, medical social worker, sociologist or psychologist. This book has attracted comment from various lay reporters, and has caused the writing of at least one more or less sensational story.

D.K.H.

GEORGE CRILE. An Autobiography. Edited, with Sidelights by Grace Crile. In two volumes. Philadelphia and New York: J. B. Lippincott Company, 1947. Price $10.00.

George Crile was a prolific writer and soon after their marriage, Mrs. Crile began collecting his papers of every description. She accumulated thirty-four volumes, five hundred or more pages of manuscripts, fifty diary files of three to five hundred pages, thirty-eight volumes of war diaries, and eleven volumes of reprints. This, together with her personal notes, memories, and life experiences has given a most unusual source of material, and the two volumes that have resulted are a wonderful fund of lore to delight Dr. Crile's friends and admirers.

Most of the work is in the first person, but Crile's style is well known to so many who have known him, and read his every work that this opens up a new treasure. You will like the books.

PRACTICAL CHILD GUIDANCE. By Samuel Kahn, M.D., Ph.D.; Grace Kirsten, A.B.; and May Elish March, A.B., M.A. Samuel Kahn is Adjunct Professor of Psychology and Psychiatry at Long Island University; Grace Kirsten, formerly New York City Department of Education and Lecturer on Child Guidance; May Elish March, formerly a teacher in the New York City High Schools. Boston: Meador Publishing Company, 1947. Price $4.00.

Child guidance is gaining in importance with the years and with experience. This book is an attempt to give the best of these teachers' experiences in the question and answer form. That method of approach allows a coverage without limit, and lets the authors lead into the most intriguing methods, but the continuity of interest, as in a story form of instruction is lost. This book is written for use of the parent and teacher more than the professional consultant, but anyone who must give advice in child guidance will find it a useful reference. Young parents can be assured of proper and explained advice. The reasons for actions and conclusions are carefully given.

THE METROPOLITAN LIFE. A Study in Business Growth. By Marquis James, twice Pulitzer Prize winner; author of The Raven, A Biography of Sam Houston, Andrew Jackson—Portrait of a President, et cetera. New York: The Viking Press, 1947. Price $5.00.

Mr. James is a fluent and easy writer, very interesting, very stimulating and his latest book, "The Metropolitan Life," gives us the history of the development of insurance from the time of the Phoenicians and Greeks, who insured their boats and cargoes as far back as 1000 B.C. The idea of insuring life started with annuities, and was based on Roman law under Emperor Alexander which fixed life expectancy. Trial and error, experience and failure built up the insurance business. Reading this book makes those of us in Michigan who helped to develop Michigan Medical Service wish this book had been written at least nine or ten years ago. We would have been saved much groping. The book is a pleasure to read and gives the history of the Metro-

politan Life Insurance Company through its years of worry and growth. Now this company is the largest private corporation in the world, outside of probably two government agencies, and it insures one-fifth of the people in the United States and Canada, and these, the subscribers, are the stockholders. There is a world of experience and trials in the development of a mammoth business.

PRACTICAL X-RAY TREATMENT. By Arthur Erskine, M.D. Third edition, revised and enlarged. Saint Paul and Minneapolis: The Bruce Publishing Company, 1947. Price $4.50.

Fully one-half of this book is devoted to a thorough review of the physical factors involved in the use of x-ray for therapy. While all of the physical aspects cannot be covered in a few pages, the survey is adequate for one who already has some knowledge of the subject and will serve to urge the uninitiated to dig further into the subject before buying a therapy unit and blithely going ahead. And, is not that the purpose of any treatise?

The last half of the book is devoted to a rapid survey of the conditions for which x-ray therapy has been used.

While, as Dr. Erskine says in his preface, this text is not intended for the use of men well qualified in the field of roentgen therapy, it is an excellent sign board for men contemplating work in this field.

G.T.P.

FORMULARY. University of Michigan, Ann Arbor. Second edition. Ypsilanti: University Lithographers, Inc., 1947. Price $3.75

This volume contains the formulae and remedies used at the University Hospitals, giving their preparation, use and dosage. The first part of the book contains tables for conversion, apothecary and metric measure, and instruction for prescription writing. The medical agents are grouped under amino acids, antihistamine drugs, anti-infectives, autonomic, cardiovascular, central nervous system depressants, et cetera, up to vitamins. It is a pocket size book and should prove very useful.

A TEXTBOOK OF CLINICAL NEUROLOGY WITH AN INTRODUCTION TO THE HISTORY OF NEUROLOGY. By Israel S. Weschler, M.D., Clinical Professor of Neurology, Columbia University, New York; Neurologist, The Mount Sinai Hospital; Consulting Neurologist, Montefiore Hospital and Rockland State Hospital, New York. Sixth edition, illustrated. Philadelphia: W. B. Saunders Co., 1947. Price $8.50.

This most recent revision emphasizes again the fact that this book is a valuable reference work for the busy practitioner. It emphasizes also that clinical neurology is a living and progressive specialty. The material presented in the introductory chapters having to do with anamesis can add much to the clinical and diagnostic approach to most any patient. The chapter on neurosis is well written and can be recommended for a summary of a controversial subject.

The chapter on psychological diagnosis is an outstanding portion of this book. It can be recommended to the physician, the student, and allied workers in the field of neuro-psychiatry. In this chapter, the exact place of the psychologist, as well as the value and the limitations of psychological evaluation of the patient, is presented in an unequivocal and direct fashion.

In general, the book is so organized that with the help of the references in the text, the index and table of con-

tents, desired information is easily and quickly located. The various clinical entities and syndromes provide a maximum of clinical information without burdensome theoretical considerations. In the opinion of this reviewer the author has, to a large extent, fulfilled his intentions in making this "book a fairly complete repository of as much factual clinical neurology as can reasonably be gathered between two covers."

F.O.M.

TWENTIETH ANNIVERSARY YEAR OF HAROFE HAIVRI, The Hebrew Medical Journal. A semiannual bilingual publication edited by Moses Einhorn, M.D.

In the medical section, the following subjects are offered: "The Importance of the Rh Factor in Clinical Medicine" by Philip Levine, M.D., and Pharmacology and Toxicology of Streptomycin" by Ernest Pick, M.D.

The section on Palestine and Health contains the following articles: "The Contribution of Bacteriologists for the Control of Infectious Diseases in Palestine" by L. Olitzki, M.D., of the Hebrew University; The Present Status of Tuberculosis in Palestine" by A. Wolowelsky, M.D., and "Plastic Surgery in Palestine" by Ernest Wodak, M.D.

Under the heading of Historical Medicine, Dr. Leon Nemoy of Yale University writes on the great philosopher and physician of the 13th century—Ibn Kammuna. Dr. Yom-Tov Levinsky discusses in his article on Folklore Medicine, the legends surrounding frogs and spiders as healing agents.

Original articles are summarized in English to make them available to those who are unable to read Hebrew.

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